A

TREATISE

ON

AGRICULTURE,

INTITLED THE

YORKSHIRE FARMER.

In TWO VOLUMES.

This TREATISE explains and exemplifies in a ſimple and demonſtrative Manner, the ſeveral uſeful Methods of HUSBANDRY, and of reclaiming BOG and MOUNTAIN, with TABLES of Loſs and Gain, annexed to each Crop.

ALSO

A MONTHLY KALENDAR of WORKS to be done, as they come in Seaſon throughout the Year.

To which is added,

The different State of the Engliſh and Iriſh Farmer, with TABLES annexed, ſhewing the Advantage of TILLAGE, and how deſtructive GRAZING is to the POOR, and to the Improvement and Trade of *Ireland*, *&c. &c.* never before made public.

With ſeveral Cuts of MACHINES, TOOLS, *&c.*

LIKEWISE

Here is humbly offered to the LEGISLATURE, and Friends of *IRELAND*, a SCHEME for maintaining the POOR thereof.

VOL. II.

By *CHARLES VARLEY.*

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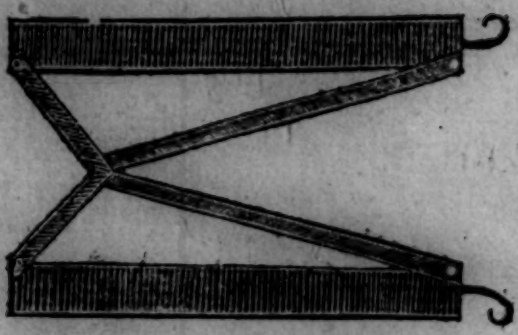
A Levelling Knife.



Levelling knife, to take off hillocks in a bog or bottom, &c. the two ſides in which is fixed the hooks to yoke the horſes to, ſlides along the ground, is about 8 feet long, and ſtands about 3 feet wide. The croſs is 2 bars of iron, 3 inches broad, faſtened at each end to the wood, and rivetted together in the middle, the inſide of the bars are ſharp to ſhave off the hillocks, &c. One man and one horſe will level a great deal in a day with this ſimple machine.

THE YORKSHIRE FARMER.

VOLUME II.

CHAP. I.

How to set Potatoes in drills, as in England, with the Plough.

I Shall treat of three different ways, as in England, for setting potatoes, but will forbear speaking of the Irish method of trenching them, as they are already too well acquainted with it, and I should be very sorry to introduce it into England.

The most profitable way I have tried is this.

Take any poor worn out ſtubble land, which may be intended for fallow; plow it in Autumn, in two furrow ridges, that is, lay two furrows back to back, through the piece you intend for potatoes.

By doing this, it will lie dry all winter, and in the beginning of March (or ſooner if the weather permit) harrow it acroſs, and it will fill all the furrows level; after which plow it, either acroſs, or length ways, no matter which, provided the land be all cut and turned up, then again harrow it well and fine; and juſt before you intend to plant potatoes, plow it again into two furrow-ridges, lying back to back, ſo that they muſt cloſe at the top, but not ſo as to let any mould fall into the oppoſite furrrow.

Being thus laid in ridges, and the furrows all open, in every furrow ſet a row of potatoes, each about the length of a man's foot aſunder, then take the dung-

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dunging-baſkets and drop a piece of dung, about the ſize of your fiſt upon each potatoe; by this method a little dung will go a great way, and a few hands will ſet a great deal in a day.

When thus ſet and dunged, go with the plough, and ſplit the ridge in two, ſo that what was the furrow will now be the ridge, and the ridge will be over the potatoes; ſo that they will come up in rows through the middle thereof.

In ſummer you may go with the plough up and down every drill to cut the weeds, and earth up the potatoes. By this method, it may be well termed a potatoe fallow, as it may be plowed always when the weeds grow.

In taking them up, go with a plough and turn the whole drill over, by which all, or moſt of the potatoes will appear above ground, and be eaſy gathered; but if a ſmall part of them remain ungather-

gathered, they will all be found by harrowing, or the next plowing.

This is a very expeditious way, both in ſetting, and taking up, and it ought to be every man's ſtudy to work his land with as little expence as poſſible.

The next eaſy way, to ſet potatoes with the plough, is in graſs-land, viz.

Harrow the ſod well, both length and croſs-ways, to ſcratch, wound and mangle the graſs-roots, in order to ſet them a rotting, which they will ſpeedly when turned up.

Then begin and plow a furrow eight inches broad; in this ſet a row of potatoes, a foot length aſunder, and on every potatoe drop a lump of dung, about the bigneſs of a man's fiſt; then plow two furrows, and in the third ſet another row, ſo that there will

will be a furrow between every two rows or drills through the piece. When it is all ſet, harrow it well, but take care not to turn up or diſorder the ſods.

When the potatoes are come up a little above ground, go with a plough up and down every drill, and lay the looſe mould which the harrow raiſed, to the ſtem of the potatoes; but be careful not to diſturb the ſod. When they are taking up, turn the drill or furrow with the plough, by which means they are eaſily gathered.

The third method of planting potatoes, is with ſpades, as they do in Cheſhire.

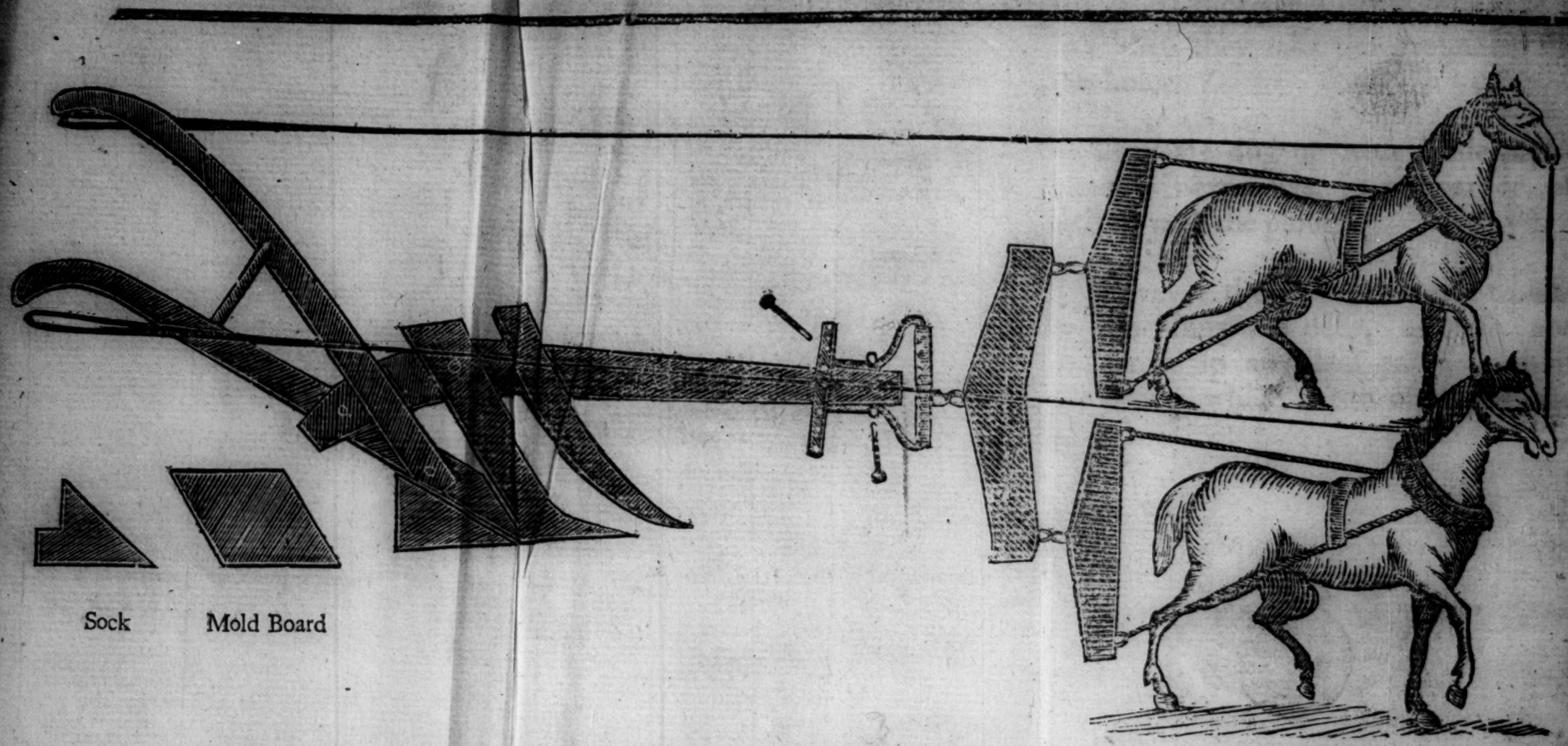
They dig all the ground, and bury the dung about four inches deep, as if they were trenching in a garden; after which they go with ſetting-ſticks, make a hole, and drop the potatoe in;

in; then they rake the ground to fill the holes.

They are dug up with ſpades alſo; but this is expenſive, in compariſon of ſetting with the plough.

However they take care not to bury the dung too deep, as alſo not to throw up any bad earth to ſpoil the land, which is too often the caſe in Ireland.

CHAP.



Explanation of the Plough.

THIS is a very ſtrong ſimple, eaſy plough, and not ſubject to be out of order. The beam is five feet and half long; and the groſſeſt part which is about the coulter hole, is four inches thick, by five deep. When the plough ſtands flat on the ſole; the end of the beam, whereon goes the muzzle, ſtands 25 inches from the ground; the croſs on which lyes the ſock, is twenty-five inches long, two thick, and four broad. The grain of the wood muſt have a natural bend, in order thereon to fix the ſock, elſe it will be apt to break. The large handle where the end of the beam is mortiſed, is ſix feet long, under it comes the chip, of a triangular ſhape. The mold-board is two feet long, from end to end, not from corner to corner; and 12 inches deep. A plank of five inches thick is ſufficient to cut and give it a proper turn or caſt. On this depends the goodneſs and eaſe of the plough going, it's very ingenious to ſhape a right one. I never ſaw any rightly made in Ireland, but by the man in whoſe hands I put my pattern plough. It is impoſſible to ſhew the caſt or turn of the mold board on paper, but I am about getting a pattern made, to have them caſt in metal, which will be of great utility in keeping them in their proper ſhape; and I expect to be able to ſell the plough at three half guineas each, ready iron'd, except the coulter.

CHAP. II.

Remarks on ſetting Potatoes with the Plough.

METHINKS I ſee my brother farmer, turn hither in great hurry, to ſee my reaſon for adviſing him to ſet his potatoes with the plough, and not to keep him long in ſuſpence, I plainly tell him, that it ſaves both men, money, and dung, beſides improving his land: theſe are conſiderations well worth his attention.

Firſt, it ſaves men; as one man, and two horſes, and five or ſix boys, will ſet as many potatoes in a day with the plough, as ſeventy or eighty men could ſet with ſpades or loyes.

Secondly, it ſaves dung; as one load will go as far as four.

Thirdly,

Thirdly, none of the dung is loſt, by being buried in the trenches; which is evidently the caſe when trenched in the old Iriſh method; but here all the dung takes place immediately, as a lump is dropped upon every potatoe.

Fourthly, potatoes got thus is nearly clear gains, as they may be ſown upon land that is intended for ſummer fallow, and ſuch land will abſolutely recieve more benefit from this potatoe fallow, than if nothing had grown; for what with hoeing with the plough, and the tops ſmothering the weeds, &c. the ground is made clean and mellow, and in fine order for a wheat crop at Michaelmas.

And there can be no diſappointment, as the potatoes can be ploughed up in a ſpeedy manner; alſo let my reader turn to Chap. 10. and he will ſee the advantage that may be made by ſowing flax amongſt potatoes.

All

All theſe reaſons, I hope will prevail upon the Iriſh farmers, or people in general, to follow this cheap and eaſy method; as nothing concerns a farmer ſo much as working his land with the greateſt diſpatch, and the leaſt expence that reaſon can deviſe.

As I have travelled between England and Ireland, for near twenty years paſt, I have had an opportunity to remark how the different markets ruled in the two kingdoms, and I always found that in the city of York, Lincoln, and in large towns, ſuch as Leeds, Wakfield, Doncaſter, Sheffield, and in ſhort all over England, where it is cuſtomary to ſet the potatoes with the Plough, that they always ſell lower than in Ireland.

This fact is inconteſtable, altho' it is well known that in theſe places, land is higher, and labour of near three times the value.

This ſhews they muſt have a cheaper and eaſier way of coming at them, or they could not be afforded at a lower rate: further, the method of ſetting with the plough is ſo eaſy, that a man may teach in an hour, as many people as could look at him.

Table

The expence and profit of an acre of Potatoes, raiſed by the Plough, as directed in Chap. 39.

	l.	*s.*	*d.*
To 60 Barrels of potatoes, at three ſhillings per barrel or 20 ſtone - -	9	0	0
To three plowings, at 2s. 6d. each, if with one man and two horſes - -	0	7	6
To two harrowings - -	0	2	0
To two barrels and a half of potatoes for ſeed, at 3s. per barrel -	0	7	6
To 80 car load of dung, being one on every two ſquare perch -	0	15	0
To ſix boys or girls, each at 3d. per day	0	1	6
To two men to ſee they be rightly ſet, and to help to lay the dung -	0	1	4
To three times hoeing with the plough	0	6	0
To plowing up - -	0	2	6
To twelve boys or girls at 3d. each -	0	3	0
To carriage home - -	0	3	0
To land rent - -	1	0	0
Total expence	3	9	4
Clear profit	5	10	8

CHAP.

CHAP. III.

Remarks and illuſtrations on the foregoing Table on Potatoes, ſet with the Plough.

IN order to encourage the farmer to fall into this valuable piece of huſbandry, I have allowed him in the foregoing table, to be well paid for all his trouble; and yet he ſees the profit amount to upwards of five pounds, ten ſhillings an acre.

Whereas, to be very minute, the profit would appear to be much more; I have very often known, from fifteen to twenty pounds made on an acre.

If I was to do ſtrict juſtice to this valuable crop, it ſhould not be charged, either with rent, plowing, or dung, as it is paſt contradiction, that the land after this, would be better for a crop of

of wheat the ſucceeding year, than if it had been fallowed in the common-way.

It is alſo to be obſerved, that I have charged the potatoes only at three ſhillings a barrel, which now ſells at nine ſhillings, which would produce twenty ſeven pounds; however it is to be hoped this will not be often the unhappy caſe, neither do I think they will ever be lower, if ſo low as three ſhillings. Theſe are all plain and impartial reaſons, which I hope will encourage the farmer to purſue this valuable method.

CHAP. IV.

The management and uſe of Fitches.

FITCHES are a very uſeful good crop, and particularly for winter or ſpring feeding for ſheep, or indeed other cattle; and what adds ſtill to their value, is that they want no dung or manure.

They may be ſown and will grow upon land, that would lie in a uſeleſs ſtate all winter; and what is more, they add to the fertilizing ſuch land, neither does a farmer pay one penny more rent for this crop, than he would for the ſtubble ſtanding on the land all winter.

The chief uſe of fitches, is to ſupply the farmer with winter feeding on his ſtubble lands, that would otherwiſe be waſte, from the time the crop is reaped, (which is about September) to March or

or April following: in this caſe they are very valuable, as all that either the land or the farmer gets by them, is clear gain.

But as uſeful as fitches are in this caſe, they are too inconſiderable a crop, to ſtand all ſummer, and take the year's rent upon them, except in very poor, ſandy or gravelly land, which is in ſome parts of England, but I ſee very little of ſuch land in Ireland.

The better the land they are ſown on for the winter feeding, doubtleſs the better herbage they will make; alſo, the ſooner they are ſown, or got into the ground in Autumn, (ſo as to have as much benefit of the declining ſummer ſun as poſſible) the better, and ſtronger your herbage will be; therefore the more cattle it will ſupport.

The

The method of thoſe that would ſow fitches, upon their waſte ſtubble land, for winter feeding, muſt be thus.

Take any ſort of land, that has been under rape, cole-ſeed, turnips, or any ſort of corn; and as ſoon as the crop is reaped and off, plow the ſtubble under; begin in the middle of the ridge, and raiſe it as high as poſſible with the plough, (by gathering or taking it up) in order that it may lie as dry as poſſible all winter, which will add both to the goodneſs of the crop, and cleaneſs of the cattles feeding.

This done, ſow your fitches at the rate of twelve or fourteen ſtone to the Iriſh acre; then harrow them in; after this, water-furrow, and gripe-croſs your ridges in the loweſt places of the land, leading to the ſide dreans, in order to give a ready paſſage for the winter's water when it falls.

If

If they be ſown at the latter end of Auguſt, or the begining of September, you may turn your ſheep in about the middle of December.

Eat them all winter, and in Spring the land will be in fine order for oats, or barley.

Some chuſe to preſerve the fitches till Spring, to feed early lambs or weathers on, which is very profitable: Others will eat them all the month of May, and then give the land a couple of ploughings, and ſow it with turnips or rape at midſummer; this is alſo a good way.

Others again will fallow all ſummer, which will greatly inrich the land, and ſow wheat on it in autumn.

If you intend your fitches for ſeed, ſow them in February, at the rate of ten ſtone to the acre, and harveſt them as peas. But if they be intended to

plow in for dung, which is the worſt way, as it is better to make dung by eating them on the ground; ſow them in March, at ſixteen ſtone to the acre, and plow them in when full of bloſſom, as directed for buck-wheat. See buck-wheat.

If you intend this crop for fodder, by the way of hay, they muſt be mown before they are ripe, that is, when the ſtraw is full of juices and ſap.

By taking them thus green, when the ſtraw is full of ſap or rich ſubſtance the grain does not ſhake out; and the horſes eat ſtraw and corn altogether, which is excellent fodder.

In this caſe, the hay muſt be made by the ſame method as any other hay; only by being cut in this ſtate, the ſtraw will be particularly full of ſap; therefore you muſt be careful that it neither rot or mould.

The

The quality of fitches is ſuch that they will grow almoſt on any ſort of land; if they ſtand for ſeed, poor gravelly, or light ſandy land ſuits them beſt; for indeed they are moſtly ſown where nothing elſe will grow; and I think they exceed any other graſs or crop whatever, except turnips for winter feeding, as they ſuit our climates, being a native of theſe kingdoms, and a plant that keeps green all winter; nay, indeed they are of ſuch a juicy nature, that tho' the ſeed ripen, dries and ſheds, yet the ſtalk or ſtraw will be a green herbage and full of juices.

CHAP.

CHAP. V.

Explanation and nature of different ſorts of pulſe, ſuch as fitch, tare, lentiles, &c.

THE following multiplicity of names confuſedly made uſe of by different authors, to convey the meaning of one plant, may well puzzle or confuſe the ideas of a farmer, and ſend him in ſearch after plants, corn, or grain, of which perhaps he himſelf may be already poſſeſſed. Neither is it expected he ſhould have a ſufficient library of books always at hand, to clear up references, to which he is too often referred: it is enough to tell him that tho' the many following names are made uſe of in different parts of the two kingdoms, yet Fitch is a name that ſuits our Engliſh tongue beſt, and what may be underſtood by every one that underſtands the language: to this name is added vitch, fetch, thetch, thetches, fitches,

fitches, chick and checkes; and theſe are abſolutely meaning one and the ſame thing; ſome makes the ſingular, and others the plural number of it. Moſt people is inclined to believe the real name of this pulſe to be vetch; but this cannot be, as vetch is the latin word for tare: and tho' the tare is of the pulſe kind, yet it hardly bears a reſemblance to the fitch in queſtion. Beſides, the tare is conſidered amongſt the Engliſh farmers as a weed; and with great reaſon too, for it is as deſtructive to corn as any weed whatever; being a weak, climing, heavy-topp'd, feathery plant, which pulls the corn down and rots it. The ſeed alſo when once it gets a footing, is very hard to get clear of, as it is of a very multiplying nature: it is of a ſmall, round ſhape, and blackiſh colour: it is likewiſe ſpoke of in ſcripture as a weed.

Notwithſtanding all this, I with regret, ſee it largely treated of by ſome authors,

thors, as a valuable crop; however, I know the ill conſequences of it ſo well, by woful experience, that I ſhall not beſtow a ſingle line about it, except to adviſe the farmer, that already has it, to clear his land of it as faſt as poſſible.

There is two ſorts of fitches, namely, the large and ſmall: the large is of a grey colour, and is moſt proper for to ſow when the crop is intended to ſtand for ſeed. The ſmall ſort is a ſmall black grain, and a hardy plant, and not ſo groſs, therefore not ſo apt to lodge and rot by the ſeverity of the winter, as the former.

The fitch bears a blue bloſſom, much like a grey field pea, the pod of much the ſame likeneſs, but ſmall; the ſtalk has a reſemblance alſo, but will not grow to near the length or groſſneſs, and is clad by a ſmall narrow feathered leaf.

The

The lentile (but corruptibly called by ſome till, is a ſpecies of pulſe, and one that deſerves the farmer's atten tion, is nearly of the ſame nature as the fitch, therefore muſt have the ſame management, but will afford to be ſown ſomething later in the ſpring, as it is rather of an earlier kind.

The ſtalk of the lentile is more taper than that of fitches, ſo conſequently will ſtand better without a ſupport. This is the reaſon, why the farmers of England ſow it ſo much amongſt their oats, as it is able to ſupport itſelf without pulling the oats down. Again, it is a great bearer, and adds much to the mealy part of the oat; therefore conſequently has more ſtrength of feed for the horſe; and the ſtraw being mixed with the oat-ſtraw, makes excellent fodder.

The pod that holds the ſeed is ſomewhat like that of a pea, but broader in proportion, and very thin, as

as the two ſides falls cloſe together round the ſeed.

The ſeed is grey, and of a round flatiſh ſhape; the leaves grow in pairs oppoſite each other, is long, ſmall, and pointed, of a paliſh green, and a little downy at the under ſide.

The corn is very good for pidgeons or fowls of any ſort: it is alſo made uſe of for the ſame purpoſes as the grey pea or fitch.

CHAP. VI.

On the different managments of Clover through all its variations.

CLOVER ſuits the climate of Ireland better than moſt other graſs-ſeed, and is a very beneficial crop, either for grazing or meadow; beſides it is a great improver of land, having a ſtrong fibrous root, which quickly incorporates with the earth; and when ploughed up or diſturbed by tillage, it ſoon rots, and becomes a very rich manure.

This, together with the ſeveral rich crops it produces, makes it of more value than any other artificial graſs. The way to make the moſt of it I take to be this, viz.

Sow it with a barley crop, that is, after the barley is ſown and harrowed, ſow the clover-ſeed, at the rate of ſix-

teen pounds to an Iriſh acre. When ſown, either buſh-harrow or roll it; but the latter is the beſt.

When the barley is reaped, eat the clover for about a month. There are many who object againſt this method, but my reaſons for it, may be ſeen under the title of remarks on clover: then lay it up; it will be well grown by April, at which time turn in the ewes and lambs. It is an excellent thing to create milk for feeding lambs with.

It is alſo good feeding for any ſort of cattle, but be watchful to keep your horned cattle walking or ſtirring about, or they will be very apt to hove and burſt.

It is a very ſwelling food, and particularly if the weather be wet; and when the cattle are firſt turned in, they eat greedily, not taking time to chew it; therefore it is beſt, only to ſuffer them

them to be in about ten minutes the firſt day, twenty the next, and ſo on as you ſee need requires.

One great uſe or advantage in clover, is it's early ſpring, for it comes in at leaſt a month before natural graſs; and a month's graſs early in ſpring is worth three any other time of the year. This is a conſideration a farmer ought to bear in mind, and that for ſeveral reaſons, viz.

Firſt, for feeding early lambs. Secondly, for ſaving hay, which at this time of the year is generally ſcarce, and dear. Thirdly, it is a great ſtrengthener to young cattle, ſuch as calves and foles; and it firſt purges and then puts them in health and vigour, to enter with a good conſtitution into the natural graſs paſture: and it is always obſerved, that when they go weak and poor into the ſummer graſs, beſt part of the ſummer is ſpent, (in which time they ſhould grow in bone)

bone) before they recover their fleſh. Fourrhly, it ſprings the in-calving cows to milk, and a farmer ought to bear in mind, that a a fortnight's good feeding before a cow calves, is worth a month after, as it fluſhes her to milk, by opening her milk-veins, ſtretching her elder tates and milk veſſels, ſtrengthens and feeds the calf within, and herſelf to undergo the painful taſk of calveing. A cow with health and ſtrength, at calveing, is worth one and a half that is poor, for milk all ſummer.

After this moſt valuable graſs has performed all theſe good offices by it's early ſpring, lay it up for meadow about the firſt of May, and it will be ready to mow in a month or five weeks after.

By good management, it will produce three crops in one year, beſide the after-graſs, or winter herbage, which to make it more eaſily underſtood, I ſhall divide as follows, viz.

The

The firſt of April, or thereabouts, ſow clover-ſeed; and the corn it is ſown amongſt, may be reaped about the firſt of September following.

Turn no cattle into the ſtubble 'till the firſt of November following, then eat it with ſheep, or light cattle, 'till the firſt of December following; but ſtock it ſparingly, not to eat it too near, leſt it wound the roots. Lay it up again 'till the firſt of April following, then put on as much ſtock as will eat it bare, by the firſt of May following, then lay it up and mow it for hay the firſt of June following.

The next crop will bring the ſeed, or may be ſaved for hay, which you pleaſe; but if hay be your choice, it muſt not be cut ſo green as the June crop, as the vigor of the growing ſeaſon is now over: beſides, as days grow ſhorter, and the ſun weaker, the hay will be more difficult to make, therefore the ſtalks require to be of a firmer tex-

texture, that it may lye more open in the cock or ſtack.

The time to cut the ſecond crop, if for hay, without ſaving the ſeed, is about the middle of Auguſt, or when the flowers are all full blown, and ſome of the moſt forward begin to fade.

But if you would ſave the ſeed, give it time enough to ripen, as there is no fear of its ſhedding, it is ſo well incloſed with a very ſticking, tough, wirey pod; therefore defer cutting till very ripe; as alſo make it very dry and raſh when cut, or it will not part from the ſtraw or pod, by threſhing, without more labour than it is worth.

By taking out the ſeed, the ſtraw will be threſhed very ſhort and muſky, however it will be good fodder, tho' not near equal to the crop managed for hay in its proper ſeaſon.

He

He is a good workman that can fetch out a peck of clean ſeed in a day, by threſhing; he muſt firſt threſh the pods out of the ſtraw, then threſh the pods, and rub and winnow the ſeed out, then dry the pods or huſks again in the ſun, and then threſh them over again, and ſo repeat theſe operations 'till you get the ſeed ſeparated from the huſk; but the beſt way is to threſh the pods or huſks out of the ſtraw, and then take them to the mill, and ſhell them, as you would oats; this is very eaſily done, and ſaves a great deal of labour, and ſeed too, as little by this will be waſted.

There is one piece of care, or obſervation that a farmer ſhould never loſe ſight of, if he expects a full crop of ſeed, and that is, never to lay up his firſt growth of clover for ſeed; for tho' it may grow vigorouſly, bloſſom, and look well, to him who is not a true judge, yet it will not bear ſeed.

There-

Therefore when a farmer eats his clover in April or May, he muſt ſee that his cattle eat it near, and crop every branch, as thoſe that miſs cropping, tho' they flower, will not ſeed; for this reaſon, I recommend eating it in April, mowing the hay crop in June, and ſaving the ſeed from the laſt crop, which will produce the moſt and beſt ſeed: But if the farmer chuſes, he may not eat it in Spring, by which he may mow the firſt crop of hay by the middle of May, and the next crop raiſe ſeed from; this will bring the ſeed crop more in the middle of Summer, when the heat is ſtrong, ſo conſequently in leſs danger of being ſpoiled by Autumn rains; which come earlier in Ireland, and the North of England, than they do near London; I mention this, that every farmer may be a judge of his own ſituation, and ſuit his crop accordingly.

It is a groſs miſtake, and very often committed, to let the firſt crop of clover hay ſtand too long before it is cut,

cut, for ſeveral reaſons: Firſt when it ſtands till the bottom of the ſtalk turns brown, it is dreaned of all it's ſubſtance, and alſo has exhauſted or weakened the root too much of it's vigour; therefore, when it is mown, the ſtubble is left as dead or lifeleſs, as that of corn, and the next ſhoot or branch which comes forth, muſt be from the very root, which admits of a fortnight's delay in the growth of the crop: whereas, on the other hand, if it was cut when the ſtalk is green and full of ſap or juices, it would ſend forth freſh ſhoots out of the very ſtalk, a little below the cut, and the coat of clover being ſtriped off, the roots is ſupplied (before they are left too weak and ſickly) with freſh air, and kept in vgiour and ſtrength to ſupport, and bring to maturity the ſucceeding crop.

It is true there may not be ſo great a bulk of hay in the firſt crop, becauſe the ſtalk is cut when ſoft

and full of juices, therefore flattens, cloſes and runs, or cakes together, when in ſtack, &c.

It alſo requires more care in making, but as this happens in the height of ſummer, there is not much danger that way, and a ſtone of ſuch hay is worth two of that which is let ſtand till the ſtalks are left dry, hard and impoveriſhed.

Clover may be ſown with ſucccefs amongſt oats; alſo if wheat or rye be ſown in broad ridges, it may be ſown amongſt them in May, and rolled in.

I have ſeen good clover where the ſeed was ſown amongſt flax; but the beſt of thoſe crops for raſing clover is barley, as this grain is not apt to grow with ſo long and groſs a ſtraw as oats, wheat or rye; therefore the clover is not in equal danger of being ſmothered.

Yet

Yet there is no general rule without an exception, for I have ſeen good and bad clover among all thoſe crops; a deal depends upon a good ſeaſon, and the land being properly tilled. With barley, however, it has the beſt chance, as we generally till the beſt ground for a barley crop; as alſo pulverize it the fineſt, barley being a tender grain, and requires good tillage.

CHAP.

CHAP. VII.

Remarks on Clover.

SOME perſons object to the eating of clover, the firſt winter after it is ſown, believing it to weaken the crop: but, on the contrary, I believe it ſtrengthens it; for as clover grows amongſt corn, it is drawn up weak and tender, by it's warm ſituation of being ſurrounded by the crop, and when a tall weak plant of this ſort, comes to be ſuddedly expoſed, it is a wonder if the delicacy of it's conſtitution can bear the ſudden change without a ſhock; therefore not fit to encounter with the inclemency of a winter.

I look upon it to be much better to eat off this weak aſpiring top, by which means it makes the root ſtrike downwards, grow ſtrong and incorporate with the ſoil or earth; the top alſo will

will ſend forth freſh ſhoots, more of them, and of a firmer texture or kind.

To convince myſelf of this, I once divided a field of clover in two parts, one of which I eat in common with the reſt of the ſtubbles, the other I did not eat at all 'till May.

The part I eat, I found to be a good deal ranker or thicker ſet on the ground than the other; and I obſerved that the leaves of the clover that was not eat, turned yellow with the froſt and died away.

In this caſe, as in moſt others, reaſon ſpeaks for itſelf, that it is bettter to take off a ſickly, tender, weak part or fibre, than to let it die away, and thereby communicate it's ſtate of mortification to the main body.

CHAP.

CHAP. VIII.

On Lalucerne, its perfection and management, alſo the method of drilling with the common Plough, &c.

LALUCERNE, ſo called by the French, but Lucerne by the Engliſh; is a very profitable graſs, and particularly where the climate is hot, and the land light and ſandy, or gravelly and rocky.

It is an excellent food, either as herbage or hay; but its greateſt perfection is for ſoiling of cattle, which makes it of great ſervice in ſome parts of England, where there are few incloſures, and where graſs land is ſcarce; inſomuch that the farmers have no place whereon to turn their cattle, except on bare commons already over ſtocked, or to tether them on the end of a ridge of corn, in an open corn town-field, ſuch as is deſcribed in vol. i. chap. 31.

I ſay

I ſay in ſuch places, I know not any graſs crop that would turn out to a greater advantage, or be more uſeful to a farmer, for in ſuch places, let a man's ſtock of cattle be ever ſo great, he cannot lay his land down for paſturage, let his inclination be ever ſo much for it: as ſuppoſing the town-fields to be four or five hundred acres, he will not yet have above two or three ridges in a place; he is therefore obliged to concur with his neighbours in the point of farming, not having it in his power to lay his land out for grazing; but as there are ſcarce any perſons in the ſaid towns, but what have ſmall fields, or crofts, therefore might ſow lucerne on their ridges in the open fields, and keep what number of cattle they pleaſe, by ſoiling them in their croft; and a great advantage they would have in ſaving the dung too, a very material conſideration in theſe corn countries.

The

The caſe in Ireland however, is quite different, as there are few who hold land, but what has it cloſed to themſelves; therefore they ſeldom want graſs in ſummer, and conſequently need not plow up their lands for that purpoſe. Moreover the lands of Ireland are naturally given to graſs.

Therefore I look upon clover to be, by much, the better crop; for though it does not laſt ſo long in the ground, yet it laſts long enough to ſee the natural graſs up; and what is it we ſow artificial graſs ſeeds for, but to ſupply the defect of this, or rather to keep the land in profit 'till the natural graſs recovers it's root, which has been damaged or deſtroyed by long tillage.

Further, lucerne is not ſo early a ſpring as clover; for, let us conſider, that it is the ſun we may thank for nouriſhing the earth, and who makes her

her ſend forth her early ſpring; now it is unqueſtionably the ſurface that firſt feels the warmth thereof; therefore, any vegetable that roots ſhallow, will make the earlieſt ſhoot; conſequently lucerne muſt have the more backward ſpring, as it ſtrikes a great deal deeper than the clover.

I would further obſerve, that clover improves land better than lucerne, by it's root ſpreading more largely and plentiful through the ſod.

I am ſtrongly of opinion, that nothing in nature improves land equal to the root of clover; for if it only lies one year, plow it up, and the furrow or ſod will be a perfect matraſs, and by plowing it up, the root ſoon rots, and becomes the fineſt manure upon earth; but this we cannot ſay for lucerne, for tho' what root there is may make good manure, yet it does not ſpread, or produce half ſo much root in the ſod, as it ſtrikes downwards

like a parſnip, and a great deal of it lies too deep to be raiſed by the plough.

The two chief perfections of lucerne conſiſt, firſt in its yielding a plentiful produce, tho' ſowed in a poor, ſandy, gravelly or rocky ground; the next is for ſoiling cattle, which, as I hinted before, is uſeleſs in Ireland; as I hardly think any one would be at the expence of men to cut and carry ſoil to his cattle, when he has good paſture fields for them to run in and help themſelves; beſide, cattle never trive ſo well when penned up in a ſmall paſture, as when they have room to rake over.

In ſhort, there are ſo many arguments in ſupport of clover being a better and more ſuitable crop than lucerne, eſpecially for the lands and climate of Ireland; that, on experience, it muſt always be found to have the preference.

Every

Every farmer, however, is the beſt judge what ſort of land he has, or ſituation he is in, and accordingly may ſuit his crop thereto. When a perſon hears two tales told, tho' he be a ſtranger to the affair, yet he may give a ſhrewd gueſs which is the moſt likely to ſuit his purpoſe.

Lucerne requires a deep ſoil; and tho' the ſeed muſt be thinly covered, when ſown, yet the land muſt be prepared by deep ploughing, as the root ſtrikes deep. See the next Chapter.

It is neceſſary the land have a good ſummer fallow; when the barley is ſown and harrowed, ſow the lucerne, and harrow once in a place, with the harrow turned the wrong end foremoſt; and when the corn is come up, roll it.

If the lucerne be intended for ſummer paſture or meadow, ſow it in the broad-caſt way, and in order to ſow it even, ſow it twice in a place. Take

no more in your hand than you can hold between one finger and thumb, and on a ridge that is twelve feet broad, make three caſts; this will ſow at the rate of ſix pounds to an Iriſh acre, which is its due.

If the lucerne be intended for foiling cattle, it is by much the beſt to ſow it in drills, viz. two drills at eight inches aſunder, and then an interval of three feet, and then two drills more, and another interval of three feet; and ſo on.

It may appear to farmers that are ſtrangers to the drill huſbandry, that it is a very nice affair, and not to be done without the expence and nicety of a drill plough; nor did I ever read any inſtructions that directed it to be done by any other way; but be aſſured there is nothing more eaſy, for a common plough will make a very good ſhift, when managed in the following manner, viz.

The

The land being well prepared for the ſeed, if lucerne is to be ſown in drills, without a corn crop, begin to plough at one ſide of the field, and plough a furrow two inches deep; in this ſcatter the ſeed; this leaves a ſpace of eight inches between the rows; then plough five more, and in the ſixth and ſeventh ſcatter the ſeed; ſo go on, leaving five furrows unſown, and two ſown; this will leave room enough between the two rows in the wide interval, for the plough to go.

As ſoon as the lucerne is above ground, go with the plough, and lay a little mould at the ſtem of each row; and always when the weeds grow, plough a couple of furrows in the wide interval, which will kill the weeds, and fallow the ground, and give additional vigour at every ploughing to the plants.

If lucerne is to be ſown amongſt corn, it cannot be ſet in drills as above with

with the plough; therefore ſtretch a line at the ſame diſtances, and ſhake the ſeed along it, and harrow it in, as if it was ſown in the broad-caſt way; and as ſoon as the corn is cut, plough the wide intervals, and hand-hoe in the narrow ſpaces between the two drills.

There can be nothing more eaſy than drilling and horſe-hoing in the above manner, which may anſwer the end by ſowing any ſort of grain, and particularly, wheat, beans, and peaſe.

Inſtead of a drill-box, or hopper which is uſed in ploughs, take a tin porringer, and punch three or four holes in the bottom, juſt the ſize of the grain or ſeed you have to ſow; by ſhaking along the furrow, you may bring yourſelf to a tolerable degree of exactneſs, and ſwiftneſs too; for one man may ſow as faſt as a plough will go.

The

The time to mow lucerne is when juſt beginning to flower.

Avoid making the hay too green, for it will appear to be dry when it is not, therefore may give again, and damage, it being ſo full of ſap or juices.

When it is cut for ſoil, there is nothing more than to cut the oldeſt firſt. It may begin to be cut when ſix or eight inches high, and ſo continue cutting as it is wanted.

CHAP.

CHAP. IX.

The moſt ſuitable lands and climate for Lucerne, with remarks thereon, &c.

THO' the lands of Ireland are generally pretty good, and naturally given to graſs; yet I dare venture to ſay that more than three fourths of all the kingdom is not proper for lucerne.

The farmer that propoſes to cultivate this plant, muſt firſt duly conſider its nature, that it is a native of a warm climate, and that it has a long, groſs, taper root, which runs perpendicularly, therefore muſt feed chiefly from the under ſtratum, perhaps at two or three feet deep.

Then again, let him turn his eye on his land, and ſee if it be of a deep, rich ſoil; if the under ſtratum be a loom, or lime-ſtone gravel, or a deep loomy ſand, or a warm rich gravel, or a black hazell

hazell earth, if he finds it to be any of theſe, he may venture to ſow his lucerne thereon, provided he plough deep, and till well. However, I am afraid he will find, inſtead of the above, a ſtrong clay bottom, at about four or five inches deep, which is of a ſolid, cloſe, hungry nature, that will not admit the root of a plant to enter, or has it any nouriſhment for a plant to feed upon; and what ſtill adds to the evil, is that it holds water like a diſh, will not let it ſink through, but keeps it ſwimming on the top amongſt the ſod, ſurface or upper ſtratum all winter, ſo that if cattle tread thereon, it immediately works or pouches to mortar; then certainly ſuch land cannot be ſuitable for a plant of ſuch a tender nature, and which ſeeks it's nouriſhment ſo deep. In ſuch land, clover has the advantage, as it requires not ſo deep land, becauſe the root runs horizontally, and keeps near the warm ſurface: alſo, the fibres of the root is ſmall and many; and a ſmall body will not rot or periſh ſo

ſoon in wet cold earth, as a thick groſs one. A farmer ſeeing the nature of the plant, and the land ſuitable thereto, may ſquare his affairs accordingly, in ſuiting proper crops to proper land, &c. &c.

A voluminous writer tells us, that the lands of England is more ſubject to run to natural graſs, than any other country whatever; inſomuch, ſays he, that it is with great labour and expence we can keep it from getting head of the lucerne, and ſpoiling the crop.

This I grant is the caſe, and this alone is ſufficient to ſhew, that in general, lucerne is not ſo valuable in theſe graſſy countries as in dry, hot ſandy countries, where natural graſs, or in ſhort any other plant that roots ſhallow, is burnt up. By ſaid author's expreſſing England to be the moſt graſſy country, I ſuppoſe he was a ſtranger to Ireland, or he muſt have excepted it,

it, and why it ſhould be ſo is eaſy accounted for, as it is occaſioned by the moiſtneſs of the climate, and the coldneſs of the ſoil, which is peculiar to the climate and lands of Ireland. The former has a cold clay ſole, and the latter is intermingled here and there with loughs, lakes, moraſſes or bogs, the damp from which is exhaled by the ſun, therefore ſoftens the air, and again deſcends in thick miſts or fogs, heavy dews, and ſmall rains, which always keep the land wet, the graſs green and in a growing ſtate.

But England has few bogs, leaks or loughs in her, therefore the air is more clear and dry. The rains of England fall ſeldomer, but much heavier; alſo the winter froſt and air is ſharper and more intenſe: all theſe conſiderations muſt ſhew, that Ireland is the moſt graſſy country of the two.

CHAP.

CHAP. X.

How to manage Saintfoin, and its perfection.

SAINTFOIN is a valuable graſs, and particularly where land is rockey, gravelly, or ſandy; and tho' in general clover is the beſt crop for the lands and climate of Ireland, yet ſaintfoin may anſwer in ſome places very much where the land is ſubject to rocks and ſtones, which makes meadow very ſcarce, (tho' the ſummer herbage is good and plentiful) as the ſoil amongſt theſe rocks is naturally good, where it can be cultivated ſo as to be brought to any tolerable tilth.

On ſuch ſow ſaintfoin, and if the ſoil be ever ſo ſcanty, it will ſtrike into every ſmall niche or crevice, and ſeek its nouriſhment very deep, where no other graſs will live, or indeed, can get a footing.

It

It is alſo good for ſoiling cattle, but in this lucerne has the advantage, as it is of a quicker growth, and leſs ſtagnated with cutting; but, as I before obſerved, this is of little ſignification to Ireland, as it abounds with good ſummer herbage: it is winter feeding that we are to conſider, as alſo to keep the land in full profit 'till the return of the natural graſs, after long tillage; and this is beſt effected by the two graſſes of clover and ſaintfoin; clover for the wet and ſmootheſt land, and ſaintfoin for the ſandy, rocky or more ſtoney parts thereof.

As I have, in a few words, given the virtues of ſaintfoin, I ſhall in much leſs give the managment thereof; as there is little alteration to be made between the raiſing of ſaintfoin and lucerne, or clover.

Saintfoin muſt be ſown earlier than clover, or lucerne, as it is in leſs danger

ger of being hurt by the froſt. The land muſt be well tilled, whether it be ſown alone, or among corn: if it be ſown amongſt corn in the broad-caſt way, harrow the ground once in a place, after the corn is ſown, before the ſaint-foin is ſown.

This will make the ground a little level, that it may not be buried too deep in places. Yet as it is a large huſky ſeed, it muſt have a covering, or it will not grow; but, by being harrowed in when the land is pretty ruff, it will be all ſuficiently covered.

If it be ſown in the drill way, along with the corn, ſtretch a line and ſcatter the ſeed along it, leaving intervals, the broadeſt three feet, and the narroweſt eight inches, as directed for lucerne.

If it be ſown by itſelf, it may be got into the ground by the firſt of March.

Some

Some will ſow it at Michaelmas, but I do not think this a good time, for it will not be a great deal earlier, beſide a ſevere winter may hurt it; and it is further to be conſidered, that by keeping it out of the ground, 'till ſpring the ground can be winter fallowed, which will add a great fetility thereto.

If it be ſown in drills, and alone, ſow it in every ſixth and ſeventh furrow, as directed for lucerne; but have a care, not to cover it above an inch deep, at the moſt. Six buſhels of ſeed is generally uſed to an acre in the broad-caſt, but one buſhell in the drill-way, is full enough.

Lay up the faintfoin for hay about the firſt of March, and it will be in bloſſom about the firſt of June; when it is full in flower, it is time to mow it; manage it in making, as clover. Obſerve in eating it with ſheep, not to eat it too near, which will damage the root, and put it in danger of rotting, if they

enter

enter upon the head of the root; it is alſo dangerous to turn large cattle into a crop of ſaintfoin, eſtabliſhed in the ground, as they will be apt to tread it up and ſpoil the plants.

The beſt method to manage ſaintfoin is to mow the firſt year, and caution the ſcythes-man, not to cut too near. The next year ſheep may very well be fed on it, and after this, it may be paſtured or mown at the farmer's diſcretion, as the roots, by this time, will be well eſtabliſhed.

CHAP.

CHAP XI.

On Ray-graſs, its perfection and management.

RAY-graſs is a native of our own kingdoms: its quality is ſuch, that it will grow in almoſt any kind of land. In cold clay, or wet land it flouriſhes greatly; it will alſo grow well on high, dry, or ſandy land; which is very extraordinary, as the two oppoſite extremes are ſo great.

It is not nice, for it will grow amongſt any ſort of graſs; it will alſo incroach amongſt corn, but while it is ſtealing its footing there, it is deemed a weed, and is known by the name of darnell. It flouriſhes greatly by culture, and will grow to the height of four feet, upon good land. The ſeed alſo grows large in proportion, and full of meal.

There are two ſorts, one called droke, and the other darnell, in latin, olium. They are both of nearly the ſame quality: there is no knowing the ſeeds aſunder, they are ſo nearly alike; the droke has a little larger or fuller grain, and I think is ſomething more delicate in its growth, for it generally flouriſhes beſt in tilled ground, amongſt corn. It produces a far greater head of ſeed than darnell. I have counted a hundred and thirty five ſeeds in one ear.

The ears of droke and darnell differ conſiderably. That of darnell, or ray-graſs, grows cloſe to the ſtalk, in two rows, not much unlike rye; but droke has a ſpread, ragged head, of many branches of five or ſix inches long, ſpreading from the main ſtalk, on the end of which branches the ſeed grows in bunches.

There is the ſame diſtinction to be obſerved in white, common hay-graſs; for

for tho' the root, ſtalk, and ſeed are nearly alike, yet the ears differ, ſome having an ear like darnell, and others having a looſe, open, ſpread ear, like droke.

The greateſt virtues of ray-graſs are its early growth, and its good quality of growing on any ſort of land. Theſe two excellencies ſhould induce every farmer to provide himſelf with ſome of it. There is no farmer but would be glad of a piece of early graſs to feed lambs on, or if he had not lambs, to turn in his cows that are generally dropping their calves in the ſpring, or early ſeaſon, and would thereby alſo be greatly forwarded in their milk.

It is alſo excellent for recruiting calves and foles, who have hardly eſcaped the ſeverity of the winter.

In ſhort, a few acres of ray-graſs would be of more value to a farmer

er, than he can well conceive; and when his natural graſs paſture comes to a head, he may lay up his artificial graſs-land for hay, and not doubt of a good crop. Ray-graſs is alſo wholeſome feeding to mix among clover.

However, tho' I have ſaid ſo much in ſetting forth the advantages of ray-graſs; yet it is not without its fault, and this is, its being an impoveriſher of land, tho' not in a very great degree; for a crop of ray-graſs, with the land laid down in heart, will hold good for ten or twelve years.

Your beſt œconomy is to mow it one year, and graze it another, alternately; and tho' it may be its property to reduce land a little, I do not think a farmer can ſow a better crop, provided he does it with diſcretion, and ſows it on his ſtrongeſt wet clay land, or where clover will not ſucceed ſo well.

But

But where clover will thrive, it is ſurely preferable to all other artificial herbage; and if I recommend ray-graſs, it is only for about five or ten acres in a hundred.

The culture of ray-graſs is very ſimple and eaſy. It may be ſown amongſt corn with any ſort of graſs-ſeed, or by itſelf.

If it be ſown with clover and barley, which is the beſt management, ſow three buſhels on an Iriſh acre, but if it be ſown alone, ſix buſhels is the complement, and ſo in proportion for an Engliſh acre.

The old broad-caſt way is the beſt to ſow it by; for which chuſe a calm day.

It may be ſown with the corn, for it will take as much harrowing, being a light ſeed. Neither is there any fear of burying it too deep. Beſides, it will grow if it lye above ground.

The

Where graſs-land, of any ſort is too thin, ray-graſs, or white hay-ſeeds, may be ſown on the ſurface, and rolled, and they will grow the firſt rain.

The greateſt care muſt be taken to mow ray-graſs in the proper ſeaſon; if no regard be paid to the ſeed.

The time to mow it is at the firſt ſhooting of the ear, when it is full of ſap; but if it be for ſeed, let it ſtand till the ear begins to turn brown. There is a medium however, to be uſed between both, and that is to mow it when the ear is full, but the ſeed not above half ripe; by this a good deal of juices are catched in the ſtalk, and the ſeed ripens and hardens as the hay is making.

The ſeed will be ſmall but ſound, and will grow very well; it muſt be threſhed like corn to take the ſeed out. An acre, plantation meaſure, may produce upward of fifty buſhels of ſeed.

CHAP.

CHAP. XII.

The Author's opinion of the nature of Bogs, and from whence they proceed, &c.

BEFORE I begin to treat of reclaiming bog, it may not be amiſs to give my ſentiments, from whence it proceeds, and the compound it conſiſts of.

We are told, that thought or imagination is one of the quickeſt and moſt extenſive ſenſes belonging to the human being: true it is; for whilſt I am viewing and examining bog, and the many particles of ſticks, ſtraw, ruſhes, bones, &c. &c. that it is compos'd of, and which ſeems to have been jumbled together in great confuſion; I ſay, while thus I am beholding, theſe marks and tokens of the wonderful cauſe that my thought is ſtriked to, and my very ſoul pitying thoſe unhappy ſuffer-

ſufferers, that in reality ſaw and felt the great confuſion, diſtreſs and deſtruction of this ſad cataſtrophe, as it is very clear to me, that the great deluge which deſtroyed the old world, gave birth or beginning (or what you pleaſe to call it) to the bogs. But as ſome of my readers may not have had an opportunity to ſee bog, or examine into the materials that compoſe it, &c I ſhall explain it as follows, viz.

Bog conſiſts of a light, open, porous ſoft body, and moſtly full of water; and theſe two bodies of bog and water covers a great part of the earth. Upon cutting the bog into ſquare pieces, about the ſize of a brick, and letting it dry in the ſun, it becomes caliſed, cloſe, and hard; when in this ſtate, it is called turf, which is made uſe of for firing, and very good it makes, particularly when it is made on black bog.

If

If we break a turf in pieces, and inſpect nicely into it, we ſhall find it to be made up of ſtraw, ruſhes, hay, moſs, bits of ſticks of many ſorts and ſizes, &c. &c. Theſe are the general compound of which makes a bog, that in ſome places perhaps, is twenty or thirty feet deep; I ſay this is what the bogs generally conſiſts of, but however, in ſome there are a great many more particles than I can mention. There has been dug out of bog at fifteen or twenty feet deep, human bones, wooden-ſhoes, horns of cattle of ſeveral ſorts and ſizes; ſuch as cows, deer, elks, &c. &c. I once knew a human body to be found under deep bog, which was quite entire, and as white as milk, but when it came to the open air, and to be ſtirred, it ſoon fell to duſt alſo. Under every bog there is timber trees of all ſorts and ſizes; ſome will lie acroſs each other, tore up by the roots; others will be broke off two or three feet from the roots, and the branches ſplit from the trunk, &c. Such

diſorder and irregularity plainly ſhews, that it proceeded after this manner, viz.

At the general deluge, when the water aroſe ſo high as to overflow or cover the face of every thing in the old world, doubtleſs every light body, ſuch as thatch of houſes, ricks or ſtacks of hay, ruſhes, ſtraw, reed, ſticks, &c. &c. roſe and ſwam on the ſurface of the water as wreck, and when the waters abated, doubtleſs the currents was very great; it is alſo very natural to ſuppoſe that ſuch wreck would ſtop and gather at any thing that would obſtruct its courſe, ſuch as tree tops in great woods, &c.

It is ſuppoſed that the wreck on this occaſion muſt be very much, therefore when ſome of it ſtopped at thoſe woods, it would ſoon gather immenſe heaps, and the more the water left it, the faſter it was bound thereon; and when the water left it reſting on the tops of theſe woods, its

its immenſe weight cruſhed or broke them down under it, in ſuch croſs diſorder as above deſcribed. And it is further obſerved, that all the timber lies quite under the bog or wreck next the firm ground, and every tree that is thus broke off, lies as it fell cloſe to the root it belonged to or parted from. I profeſs upon conſideration, theſe bogs proves the truth of a deluge ſo fully, that were there no other tokens or memorandums upon record, it would bear no manner of doubt with me.

As to what brought on the great deluge, whether by rain, or whether the earth gave way, and dropped into the great abbyſs, it is a point not finally agreed upon by the learned. It is true, the Scripture tells us, that God drowned the old world by forty days rain; doubtleſs it might rain forty days at the ſame time, but I muſt be excuſed from being of opinion, that forty days rain alone drowned the world, ſince

ſince by calculation, that may be made with a tolerable degree of exactneſs, proves that forty days rain, in a great degree, would not raiſe the water a foot high, over all the face of the earth, and much more to raiſe it fifteen cubits, (which is ſeven yards and an half) high, above the higheſt hill.

It is true, if the great God pleaſed, he could deſtroy the world with a drop of water. But however it is not very probable that forty days rain overthrew the old world: but it is poſſible, and very probable, that the earth dropped or ſunk into the main abbyſs; and it is alſo as poſſible that it would riſe again, being the lighter body, and interſperſed with air.

If we compare great things with ſmall, drop a piece of wood, &c. into water, and it will perhaps go to the bottom, by the force of the fall, but will immediately redound, or riſe again to

to the ſurface; this I apprehend was the caſe here.

As to what the ſcripture ſays concerning the world being drowned by rain, we may put it upon the ſame footing as when Joſhua commanded the ſun to ſtand ſtill upon Gibeon, 'till he got his will upon his enemies.

Though we are ſure that the ſun is a fixed body, and that it is the earth which moves: yet however, Joſhua ſpoke as he thought in the literal ſenſe, and God knew his meaning, and granted his requeſt in one ſenſe, for he ordered the earth to ſtand ſtill, which anſwered the ſame end to Joſhua.

Thus I ſuppoſe was the like caſe with Noah, for God ſaid he would overthrow the world by water, and as rain was the eaſieſt to be underſtood by Noah, it was conveyed to him in that ſenſe. It availed nothing to Noah how

how it was to be effected, whether by rain or the earth dropping into the main abbyſs, ſince God's will was fulfill'd.

Beſides, as I obſerved, it might rain all the time this great work was effecting; for as the earth was covered with water, the heat of the ſun had more power over that element, to exhale it into the clouds, and when the air or the clouds was over-loaded, it would then doubtleſs return in rain as uſual.

There is a large book in folio, wrote upon this ſubject, by a very ſenſible author, wherein he proves very clearly, what I have here ſet forth, of the earth droping into the main abbyſs and not drowned by rain, as is generally thought: and if the ſenſible reader have ever ſeen the ſaid book, he muſt be of my opinion.

But however, be how it will, a general deluge there was, and that this deluge, was the founder of the bogs, and

and that the materials of ſaid bogs, are made up of the wreck of the old world, is very eaſy to be conceived by a cool headed reader, that will give himſelf time to think, and digeſt the above obſervations.

Bog being a compound of hay, ſtraw, ſticks, &c. &c. intermixed jumbled or wove together (as it were) in great diſorder, one might expect it to be a maſs of dung, and ſo then it was and would long ago have been melted into a ſolid body of earth, if the water had permitted the air to penetrate it, and cauſe a fermentation, then naturally would have followed a putrefaction; after this, it would have ſubſided, cloſed, fallen together, and become a ſolid body.

But as long as the water was permitted to lye thereon, it kept it always cold, not giving it time to heat or putrify.

There

There is a fall (it is true) from all bogs, and the water continually keeps running off, and in its paſſage, takes along with it many ſmall niterical or rich particles, as all bog water is black, and what makes it ſo, but the diſcarded particles of the bog being melted into it; for we are ſure the rain that falls on the bog, is at the time of falling, as clear as in other places, therefore the bog continually keeps purging itſelf of its richer particles by the redundance of water that falls from the clouds, thus it alternately keeps receiving and diſcharging, by which means both the bog and the water is kept cold, and free from putrefying.

And farther we are to obſerve, that the ground under bog is always clay, marle, or ſome ſuch ſolid body, which holds water like a diſh, therefore the bog is utterly deprived of any other means or paſſage to diſcharge it's load of water, but through the ſurface; whereas, if the bottom was a ſand,

or

or ſandy gravel, it would be immediately dreaned, and would long ago become ſolid earth.

Therefore, it is evident, that it is the water which keeps the bog alive, and if by ingenuity, œconomy, and induſtry, the downfalls of water, was not admitted to ſink into the ſurface thereof, but immediately be conveyed into main drains, rivers, &c. the bog would ſoon become a conſolidated body. We ſee that at the verge of almoſt every bog there is a bottom, on which grows a coarſe ſort of graſs, which is ſometimes made meadow of; this has formerly been as rank a bog, as the reſt, as plainly appears by the nature of the ſoil, and the bog timber lying under it, &c. but the firm ground is a little higher ſituated than the middle of the bog, which give it a ſhade, therefore the water has left it, and retired to the loweſt place; this ſhews that bog is loſing ground, and more particularly where people ſtrives to

aſſiſt nature, by making canals, drains, &c.

This ſhews the advantage England has over Ireland, by their early improvement, witneſs the fenny countries, levels, Houlderneſs, &c. I know places in England where one may travel for ten or twenty miles together, over improved bogs, which are now harrowable, paſturable, and good meadow lands, the one may cut (perhaps) the heighth of a man, in turf, as may appear by their drains; and under it a bed of bog timber; but then in ſuch places, you ſee it well drained, laid out and improved.

All theſe are manifeſt truths, which every bog, the materials it is made of, and the ſituation it is in, can witneſs.

CHAP.

CHAP. XIII.

How to reclaim Bog, with proper ſeeds to ſow thereon.

HAVING in my laſt Chapter treated of the nature of bog, and from whence it proceeds; in this, I propoſe to ſhew, the farmer how to reclaim it, in a ſhort, eaſy, cheap method, as every thing loſes it's value by being too laborious and expenſive. A great many people thinks, that the larger dreans they make, the more effectually they will drean their bog: but here they are quite wrong, for if inſtead of one drain of eight feet wide, they would make eight at one foot wide, and diſperſe them advantageouſly over the bog, to catch and convey the water as it falls into the main drains, before it has time to ſink or penetrate into the ſurface, they would juſt ſave ſeven parts of their money, out of eight, and the work would be more effectual.

Since

Since experience tells us, that a drean of a foot wide at the top, and carried ſloping down 'till it comes to ſix inches wide at the bottom, is ſufficient to drain the wetteſt piece of bog from any down-fall of water; for there are ſeldom any ground ſprings in bog; and if there ſhould, this is ſufficient to take it off.

As to the depth, I can fix no certain ſtandard: every man's reaſon, and the nature of the land muſt be his guide in this caſe; for it may happen, that he may have hills or riſing grounds to cut through: if ſo he has his guide or level along with him, namely the water; for he muſt cut them to ſuch a depth as the water will follow him, which muſt be his general direction.

I give a neceſſary width, only ſuppoſing the ground to be level; but if he have hills to cut through, he muſt vary his cut in width at top, to give him

him ſufficient room to work, and bring it to a proper breadth at bottom.

Fence drains, I likewiſe ſet no bounds to, as every one is the beſt judge what will turn his cattle.

Firſt cut a head drain at the edge of the bog, where you think the beſt fall for water is, cut three feet at top, and carried down with a ſlope, 'till it come to half a foot at the bottom, determines the depth, and this drain is ſufficient to take off the water.

Confine the water to as narrow a channel as poſſible, by which means it will keep it's courſe clear, and a drain will laſt longer without ſcouring or cleaning out; but on the contrary, if it be wide at bottom, the water will run with a thin ſheet and a ſlow motion, ſo give the graſs and weeds an opportunity to grow, and when they once get a footing, the drain is ſoon choaked up with the ſtop-

ſtoppage of every ſtone or ſtick, as well as the graſs, that may happen to fall therein.

The head drain being thus made, lay out the fields as long as the bog will admit; but not above ſix or eight perch wide; make the ſide drains two feet wide at the top, and bring them to nothing at the bottom, then look over the field, and find out all the low places and bog-holes where the water ſtands: from theſe cut ſmall ſurface drains eight or ten inches wide, the ſhorteſt way you can into the head or ſide drains.

Theſe ſmall drains are cheaply and quickly made, and are quite ſufficient to carry off the water, ſo that the men may ſtand dry to dig.

Being thus prepared, examine the bog whether it be firm, ſo that bullocks or horſes can go on it to work.

In

In moſt bogs or bottoms there are little round hillocks or lumps, perhaps a foot high, and two or three diameter; theſe obſtructs the plough inſomuch, that in ſome places it is impoſſible to plough at any rate, and in others where they are not ſo plenty; yet if there be any, they diſturb the plough, and make the ploughman make bad work. When this is the caſe, you muſt cut them off with the leveling knives; then men muſt go with forks, and throw them to a ſide, in order to clear a road for the plough to go, then cut it acroſs with the cutting knives fixed in the roller, as directed for burn-beating. All theſe are neceſſary preparations, before the plough can go.

Your bog being thus prepared, you muſt have two ploughs, one to follow the other in the ſame furrow, the coulter and ſock of that which goes foremoſt muſt be very ſhort, that it may cut eaſy, as the heath and ruſh roots &c. is very tough, the firſt plough muſt

muſt have a wider brick than that which follows, in order to throw the firſt furrow at a diſtance, that the following plough may turn the next furrow without touching it; thus they follow one another, the firſt plough always throwing its furrow over the ſecond, by which means the firſt ſod is kept uppermoſt, ready for burning; the ſecond furrow forms and raiſes the ridge in the middle; the horſes muſt go on the uncut ſod, cloſe to the ſide of the furrow, for they cannot walk at all, in the furrow without ſinking, and the intent of one plough following another in the ſame furrow, is to raiſe the ridges as high as poſſible, while the cattle has the ſod to walk on, and it is very poſſible to plough three or four furrows deep, by the ſame rule of following one another in the ſame trench and furrow, and the cattle walking on the uncut ſod beſide it; but then as many ploughs as you intend to follow one another thus, muſt be differently prepared; as for inſtance,

if

if you would plough two furrows deep, the firſt plough muſt have a brick ſixteen inches wide, by which means it will throw the ſod ſixteen inches from the uncut ſod, that is, it will leave an open furrow ſixteen inches wide, by which means, the ſod will turn within four inches of the firſt furrow; this laſt plough muſt be geared to go nine inches deep; that is, it muſt turn a furrow ſix inches thick, and the firſt furrow three; therefore the furrow will be nine inches deep from the ſod the cattle goes on, and conſequently the middle of the ridge would have nine inches riſe; but as the firſt of three inches would be burned for aſhes, it would leave a riſe only of ſix inches, which would be too little for ſo broad a ridge, therefore it is neceſſary either to make the ridge narrower, or have three ploughs to follow one another; the firſt, to clear a furrow twenty inches wide by three deep, the ſecond, to clear a furrow ſixteen wide by ſix deep, the third to clear a furrow twelve

wide, by ſix deep; by this the depth of the laſt furrow will be fifteen inches deep, and the ridge will have riſe enough to give the water a fall in the furrow, and the furrow deep enough to take it into the drain.

As the ſecond plough goes about five inches deeper than common, it is neceſſary that the croſs and coulter be ſo much longer, in order that the beam may ſtand higher in proportion to the depth it has to go; and alſo, as the third plough muſt go about eleven inches deeper than the common plough; the croſs and coulter muſt be ſo much longer, in order that the beam may ſtand eleven inches higher, this alteration in the perpendicular way is all that is wanted.

As to the horizontal way, there is nothing more wanted than to alter the britch of the firſt plough, by making the britch pin, that goes between the mould board and chip, much longer than

than common, as you would have the furrow wider than common: it is alſo neceſſary that the mould-board be longer than uſual, or elſe the turn off will be too ſharp; reaſon will point out to the plough-man or plough-wright that the mould-board muſt be proportioned in length to the width he makes the britch; the ſole or chip need be no longer than common; the laſt plough will not want to be altered in the horizontal way, neither will the firſt plough want to be altered in the perpendicular way.

The muzzle on the end of the beam, on which the ſwingle-tree is hooked, may alter the plough both perpendicularly and horizontally, therefore this will give the plough land ſufficient to allow the horſes to go on the ſod: All this is plain and eaſy to be underſtood, by any one who has the leaſt knowledge of the plough.

Let

Let me adviſe my reader, who would reclaim bog, firſt to lay out the field in ridges, and the firſt year only, plow or reclaim every ſecond ridge, by this (as the phraſe is) he is killing two birds with one ſtone, for by raiſing or reclaiming one ridge, he opens a drain or furrow at each ſide of the unreclaimed ridge, ſo that the year following, it will be firm and dry; beſides the advantage he will have in keeping the ſkin unbroke, to draw manure to the reclaimed land, or to draw his crop off, &c.

Then the year following, when the ſecond ridge is reclaimed, the firſt will be got pretty firm to fulfil the ſaid conveniency of paſſing and repaſſing, &c. &c.

If it ſhould be a very ſoft wet bog, and full of bog-holes, &c. ſo that cattle cannot go on it to plow it by the above directions; then you muſt attack it with ſpades in the following manner;

manner; but in this method only reclaim every ſecond ridge the firſt year, by which means the remaining ridge will doubtleſs be dry enough to plow the ſucceeding year.

Make your ridges forty two feet broad, which is two Iriſh perches; by this you can eaſily meaſure your men's day's work at night, and form a judgment what it will coſt an acre, and how your men works &c. and watch them the firſt day, and by this you will know what they can do, and inſiſt upon the like every day; thus I have had good work.

Cut your ridges ſtraight with a line, for it looks very ſlovenly to have crooked furrows, and they are no eaſier made than ſtraight ones, and if they are once crooked, they will be always ſo.

Begin with ſpades, and throw the ridges high in the middle, let each ſide have a gradual deſcent. Nine

Nine inches taken from each furrow, and half-way up the ſide of the ridge, thrown on the middle, will give it a riſe of about eighteen inches; bring the furrow to nothing, that is, with an even ſlope, having no ſharp edge from the bottom of the furrow to the top of the ridge.

Land layed in this manner has no need of any but head drains, for every furrow is a drain to the ridge it belongs; if it be a black bog, by no means bury the upper ſod or turf that is covered with heath or any ſort of rough graſs, &c. as ſuch is fuller of ſalts and ſulphur than ten times the bulk of the under turf.

This upper ſod muſt be cut as thick as reaſon ſhews it will burn, in order to raiſe as much aſhes as poſſible, the more the better; the ridges muſt be thrown up before they are burnt, the better to warm the bog, and to preſerve

ſerve the aſhes from being any of them buried.

About May, or as ſoon as you find the ſods are dry, and will burn, make heaps of about a cart-load in each, at a proper diſtance, diſperſe them all over the ridge, in order to give the bog all the advantage of heat you can, for heat is of great benefit, as it ſets the bog a working, by which means the particles thereof are divided and become a kind of manure to itſelf.

I look upon the heat of fire to be as great advantage to the ſoil almoſt, as the aſhes; for I have obſerved in burn-beating, the places where heaps of ſods had been burned, that tho' all the aſhes were taken off, and even ſome of the earth pared away, yet that place had the beſt corn on it, and it is plain it got no other advantage from the burning, but the heat of the fire which brought it to a ſeparation.

When

When thus burned, and the aſhes ſpread, which ought to be finiſhed by the twenty-fourth of June, ſow turnip-ſeed very thin amongſt the aſhes, and as no horſes can come on the bog for ſinking, draw a light roller over it by men, the preſſure of which, tho' the ſeed will not be well covered, yet it will ſtrike root and grow very well, particularly if there happens to be a ſhower of rain ſoon after.

There is no need of hoeing the turnips, as that would lighten the bog too much; for the lighter it is, the worſe; and this would add to the evil.

Eat the turnips on the bog with ſheep, the urine of which greatly adds to the fertility thereof, and gives it a thorough dreſſing; beſides the trampleing of the ſheep will in all probability ſodden it ſo much, that horſes may go on it to plow for the ſucceeding crop.

In

It muſt be plowed very thin in this plowing, ſo as not to bury the aſhes or ſheeps dung above two inches at moſt; alſo take care not to turn up any bad or unimproved bog, and the aforeſaid manure would have more advantage over three or four inches thick of ſoil, than twice the quantity.

About mid-ſummer following, ſow your bog with rape or cole ſeed, at the rate of one peck and an half to the acre, Iriſh meaſure.

After ſowing, roll it in with men, if horſes cannot go on it.

If you find the crop be forward and good, eat it with ſheep, which will give it another dreſſing; beſides bog will bear eating very well, for the rape will keep growing in the winter, it being not ſo ſubject to freeze as upland.

The beginning of June, in the year following, when the reap is off, another crop of turnips may be sown.

This will make two crops of turnips, and one of rape, which will a great deal more than pay for reclaiming the worst bog in Ireland, as these three crops at a moderate computation, may be worth twelve pounds an acre, and by chance, twice or three times that money.

Whereas, digging, draining, and burning, by the above directions would not cost above four pounds an acre; but if the bog be level and free from bog-holes, it will not cost near so much.

When the turnips are eat off, which ought to be by the first of March, sow it either with rye or oats, but rye to choose, as we may now suppose it to be very rich and well reclaimed.

Above

Above all things ſow the ſeed very thin, or it will be all ſtraw, but little corn; ſix ſtone of rye on an acre, or ten ſtone of oats is full ſufficient.

About the firſt of April, ſow clover and ray-graſs, or inſtead of the latter, white or common hay-ſeed, which may do as well, if not much better.

Sow nine paunds of clover-ſeed, and ſix buſhels of hay-ſeeds, on an Iriſh acre, and ſo in proportion for an Engliſh one.

When ſown, roll it in; and obſerve never to alter the ridges out of the form or poſition they were firſt laid in by digging: always preſerve the furrows in the ſame place.

Keep the furrows and drains open, to let no water ſtand thereon, which would ſoon waſh the manure away, having

having a ready paſſage out of this looſe open ſoil.

It is a bad piece of huſbandry to mow bog until it has been firſt graz'd a year or two, but this I ſhall reſerve for the next chapter.

CHAP XIV.

Remarks on reclaiming Bog.

I Hinted, under the article of reclaiming bog in the foregoing Chapter, that bog ought not to be mown for hay, for the firſt year or two after it is laid down with graſs-ſeeds; the reaſonableneſs of which I moſt humbly conceive, will appear from the following remarks, viz.

Bog, particularly before it has been eat, throws up a tall, ſlender, weak graſs, the ſtalk of which is not able to ſupport itſelf upright, but doubles, or as it were, kneels upon the ſecond or third joint, ſo that when it is mown, it turns up brown at the bottom, and looks as if it were dead; and indeed, it is far ſpent, for the nature of the ſoil is of ſuch an open, porous, weak quality, that it gives the ſun great advantage to exhale the nitre or virtues

tues of the earth, which nature conveys through the verdure or blades of the vegetable creation.

I ſay, that bountiful nature, thus aſſiſted by the nouriſhing rays of the ſun, goes on at a vigorous rate, 'till ſhe has exhauſted her ſtores, by the firſt vigorous onſet of growing, and has been ſo active in throwing her favours upward, that the fibrous parts of the roots, which ought to be equally nouriſhed, to make them grow and incorporate with the earth, have been robbed of their ſupply, by throwing all the ſtrength of the land into ſtraw or top.

This is certainly the caſe alſo with corn that grows on this open looſe earth, it never feeds or fills well, by reaſon it exhauſts all its ſtrength in the firſt onſet of growing; the ſoil or mould being ſo looſe about the roots, gives the nouriſhing particles too free a communication thereto.

It

It is not becauſe there is more nitre or richneſs in a ſtrong clayey ſoil, than ſuch that makes the corn be bolder, or fill better; no, this cannot be; for certainly there are more rich qualities in a dunghill than in a ſtrong clayey ſoil; yet the latter will produce corn, when the former will produce nothing but ſtraw.

For the ſtrong land is firm, cloſe and ſolid about the roots of plants, ſo that the fibres thereof take in their ſupply of nouriſhment more gradually, and does not let nature overſhoot herſelf.

Without doubt, this weak, light, looſe ſoil throws up as much refined ſubſtance into the ſtraw, as, were it proportionably divided betwixt ſtraw and corn, would produce a good crop of both, and the grain as full a body as other land.

But

But could it be ſo contrived, this dividend ſhould be by gentle, and proportionable checks in the growth.

This makes it neceſſary to eat reclaimed bog with ſheep; which, by continual cropping the branch, as it ſprings, it checks the growth, and makes the roots ſtrike downwards, ſpread and incorporate with the earth, and alſo cauſes the ſtalks of the graſs to ſtool and ſhoot out new fibres, which ſpread over the ſurface; beſide the trampling of theſe light cattle, ſaddens the ground, and helps to bring it to a ſolid body.

This ſhews how aſſiduous we ought to be in employing all our induſtry and ingenuity to help the works of nature, by rolling and plowing at a proper depth, &c. in ſuch land as reaſon points out to want our aſſiſtance, and alſo to the conſtitution of ſuch lands with ſeeds or grain beſt fitted to their nature, in order to raiſe every crop to the beſt advantage.

As

As for inſtance, a good and profitable crop of either turnips, rape, or cole-ſeed, may be got or raiſed from ſuch reclaimed bog, and at the ſame time the ſoil improved to an amazing pitch of fertility; whereas, if theſe three crops were corn, it is a wonder if they would be worth reaping; ſtraw it will produce, but very little corn, and what there is will be little better than what we call hen-corn, namely, ſmall and bad. This I am convinced of from my own experience.

TABLE I.

A Table, ſhewing the expence and profit of reclaiming an acre of Bog; if the firſt crop be Turnips, the ſecond Rape, and the third Turnips. Theſe three crops I ſhall put into three ſeparate tables, that it may appear more clear to my reader, and ſuppoſe the firſt expence of improvement to take place April, 1766.

	l.	*s.*	*d.*
If it be a black bog that will raiſe plenty of aſhes, it may bring a better crop of turnips than Up-land. I have frequently had better crops from ſuch; however I abate one fourth of the value of a good crop, ſuppoſing an acre only to feed fifteen ſheep, which if coſt when bought in December twelve ſhillings a piece, they will ſell when fat, in April for twenty-four ſhillings each, by which they will leave a profit of -	9	0	0
If the bog be ſo wet and ſoft as horſes cannot come on it to plow, it muſt be dug with ſpades as directed: it will coſt for digging and throwing in ridges	2	10	0
To turning and drying the ſods if wanted	0	5	0
To burning ditto in May or June, 1766	0	15	0
To ſpreading the aſhes -	0	2	0
	3	12	0

	l.	s.	d
Brought over - - -	3	12	0
To turnip-ſeed, rolling and ſowing -	0	2	9
To forking up the turnips, and attending the ſheep with hay, &c. - -	0	15	0
To one load and a half of hay -	0	9	0
To market expences, ſales-maſter, &c.	0	8	0
To half a year's intereſt for nine pounds, which the ſheep coſt in December -	0	4	6
To eighty perches of ſide-drains, at two feet wide, and at three half-pence a perch - - -	0	10	0
To eight perches of head-drain'd, at three pence half-penny per perch -	0	2	4
Total expence	6	3	4
Total produce	9	0	0
Clear profit	2	16	8

Note, I have charged this table as high in expence as poſſible; for there is an equal chance but the bog might be ploughed, if ſo, it would not coſt above thirty ſhillings inſtead of fifty, which would leave a profit of three pounds ſixteen ſhillings and eight pence: beſides I have allowed for draining the acre quite round, which if there was more than one acre lay together, it would have a right to be charged only for two head dreans and

one

one ſide drain. However I would make every allowance that is poſſible a farmer might be out of pocket, on purpoſe that he might not be teaſed into more expence than he expected; but all this I am clear in.

A Table

A Table ſhewing the expence and profit of an acre of Rape, raiſed from Bog after a crop of Turnips.

	l.	*s.*	*d.*
I have known at the rate of thirty barrels of rape raiſed from one acre of bog Iriſh meaſure; but however, here I will only allow the farmer fifteen barrels, at 18s. per — —	13	10	0
Tho' if his bog be good, and he manage well, he may be ſure of almoſt double the quantity.			
To ſtraw to burn for aſhes —	0	6	0
Total produce	13	16	0
It is a great chance whether or no the bog will want any preparation for this crop, as the ſheep will tread and break it, by eating the turnips off, and we are ſure there will be no weed, but if it ſhould want to be plowed, it may be done with one bullock and one man, for which we will allow —	0	2	6
To ſeed and ſowing — —	0	1	6
To rolling (for it need not be harrowed,)	0	1	0
To a man to go round the furrows and ſeveral times in the year, leſt any lumps of earth ſhould drop in to ſtop the current of the water, and to throw it out — —	0	2	6
To a boy two months, at 3d. per day, to keep the birds from eating the rape	0	13	0
To reaping and threſhing, and market expences, with carriage, &c.	1	4	0
Total expence	2	4	6
Clear profit	11	11	6

Note, this crop is of the growth we ſuppoſe, about midſummer, 1768.

Table

Table III.

A Table on an acre of Turnips, being the third crop after the bog is reclaimed.

	l.	*s.*	*d.*
I ſhall here again only ſuppoſe the turnips to feed 15 ſheep, at twelve ſhillings profit each Total produce	9	0	0
To once plowing with one man and two horſes — — —	0	2	6
To gentle harrowing before the turnips is ſown — —	0	1	3
To ſeed, rolling and ſowing	0	2	6
To forking up turnips, attending the ſheep with hay, &c. — —	0	15	0
To ſeven hundred and a half of hay	0	9	0
To market expences, ſale's-maſter's allowance, &c. — —	0	8	0
To intereſt for nine pounds, being the firſt coſt of the 15 ſheep, and lying out of it about half a year —	0	4	6
Total expence	2	2	9
Clear profit	6	17	3
Note, the money is made on theſe crops in April 1769, therefore from April 1766 is 36 months; which produces three crops, the profit of which being added together, makes in all, clear profit	21	5	5

A fine

A fine thing indeed, and ſtill nothing but what might be reaſonably expected, and may chance to be a great deal more, and what may encourage a reclaimer; yet more is, that while he is at work with his bog, he has no rent to pay for it. And now that he has got theſe three crops, we may ſuppoſe the bog to be reduced to good land, and fit to receive a crop of corn, and ſown with graſs-ſeeds as directed, and there is ſcarce any doubt but it will bring meadow worth, at leaſt 30s. an acre; there is no deceit in all this, for we ſee as plain as two and two makes four, that here is nothing but what the common courſe of things may bring about, if the farmer ſtick to the rules laid down under the head of reclaiming bog.

Then will not all this awaken him to that valuable and neceſſary piece of improvement, which will add fame to his memory, money to his pocket, and

and health and beauty to his country.

N. B. I forgot to tell the farmer, under the article of reclaiming bog, that when he has got it laid down with graſs, he may then put what manure he pleaſes on it, but to chuſe lime-ſtone gravel, or marle, which will turn it to ſhamrogues or fine graſs, and the ſkin or ſod will keep his manure up from ſinking, but if he lays it on whilſt it is under tillage, in its looſe open ſtate, it will immediately ſink behind the reach of the plough to turn up, or any plant to feed upon, therefore he will infallibly loſe it to all intents and purpoſes.

CHAP. XV.

On reclaiming Mountain.

THERE are ſeveral ſorts of land that goes by the name of mountain, tho' in the ſtricteſt ſenſe, mountain is an eminence or a hill; and moſt hills are barren, heathy or bad land; from this, I ſuppoſe, heathy land has derived the general name of mountain in Ireland, tho' the land be level.

In England, indeed, they have few mountains, tho' a great deal of heathy or lingy commons, which has nearly the ſame ſurface as the Iriſh mountains, but the under ſtratum, in moſt places, are quite different.

In Ireland, the under ſtratum is generally a hard, ſolid, binding gravel; but in England, the under ſtratum is a free, black or red ſand, which makes it eaſy to reclaim or work in: the upper

ſurface, as obſerved, is nearly alike, of a black, open, light, looſe, fuzy, boggy ſort of earth, on which grows heath or ling.

In England, it is pared thin in ſods, and made uſe of for fireing; it is alſo made uſe of in ſome parts of Ireland for the ſame purpoſe.

In England, there are large tracts of this heathy land, and one that does not know the conſtitution of the country, might brand the inhabitants thereof with indolence and ignorance, becauſe they do not improve them; but however, here they are not blame worthy, as no man dare incloſe a ſingle perch without an act of parliament impowering him ſo to do, as the lands are all common, no man can claim a ſeparate part, this makes improvement ſo backward in England.

But however, they ſhew the difference, for when once an act is paſſed for

for the dividing and incloſing a piece of ground, ſuppoſe it be ſeveral thouſand acres, it is ſeldom more than a year or two, before it is improved, and made good land of.

I mention theſe particulars, to take off the aſperſion that ſome of the Iriſh gentlemen have unthinkingly caſt upon them, for leting their lands lie waſte, not conſidering the reſtraint they lie under, and how hard it is to find a townſhip of men in one mind, who will be at the expence and trouble, to get an act of parliament to incloſe and divide ſaid lands.

But this is not the caſe in Ireland, as every man has his land to himſelf, therefore, if he does not improve it, he has not that excuſe to make.

This is the ſtate of the caſe with mountain between England and Ireland; but in Ireland, mountains vary greatly; in ſome mountains, the black

ſoil

ſoil that cover the gravel, is deep enough to admit a ſod to be pared and burned for to raiſe aſhes; when this is the caſe, there cannot be a better and cheaper improvement; and this is like killing two birds with one ſtone, as the phraſe is, becauſe the fire deſtroys at once the heath, rubbiſh and wild nature of the boggy part thereof, and converts them into a friendly manure.

The beſt and moſt ſuitable crops for ſuch deep mountain as this, are rape, cole-ſeed or turnips, and treated much in the ſame way as you would bog; but indeed, it will never be ſo good for meadow; therefore it is beſt to lay it down with common graſs-ſeeds and clover, or common graſs-ſeeds alone, and keep it for grazing. After it has layed a year, if you have lime-ſtone gravel, (as there are few mountains in Ireland without) lay it on, at the rate of two car loads to a ſquare perch, and this will turn it to ſhamrogues or fine graſs: but do not lay it on before the

roots

roots of the graſs is well eſtabliſhed. There is another ſort of mountain, which is very thin of ſoil, therefore if it was burned, you would deſtroy it to all intents and purpoſes.

This ſort is called green mountain; it is covered with a ſhort, poor ſpreading heath, intermixed with moſs and a coarſe graſs.

The only way to improve this is by fallow; begin to plow it for that purpoſe about Michaelmas, and let it lie expoſed to the inclemency of the winter, by which the froſt will kill the roots, and the ſod will rot: about April harrow it well, and then give it eight or ten ploughings before wheat-ſeed-time; then you may ſow it with wheat, and there will be no doubt of a good crop, without any ſort of manure. I once produced as good wheat from a very poor mountain, as any in Thomas-ſtreet market; and I am clear, it will never fail of anſwering the expectation,

if

if the farmer plough well, and ſtick cloſe to this rule.

He may convert this ſort of mountain to the rule of tillage which I have laid down in Vol. I. Chap. 15. p. 111. as this ſtrong mountain will anſwer beſt to be kept in tillage.

And can a man turn his land to a better account, or a greater advantage, as appears by the table on wheat, Vol. I. p. 117? certainly no; and if he be not ſtupidly blind to his own intereſt, he will not delay putting it in practice in good earneſt, without loſs of time, after he reads this book.

CHAP.

CHAP. XVI.

A cure for wet and cold land, by laying it in broad high ridges, &c.

ONE of the greateſt misfortunes that can attend a crop in Ireland, and the North of England, is too much wet; this ſometimes happens from the particularity of a ſeaſon, but much oftener from the nature of the land; but from both theſe a farmer may guard himſelf. It may be aſked indeed, can a farmer cauſe ſun-ſhine, or call down rain? It's true he cannot, nor do I expect impoſſibilities of him, but there is nothing more eaſy than for him to guard againſt this general evil; for tho' he cannot prevent rain, yet he may effectually prevent his land or crop from being hurt or damaged by it, if he lays his land in high ridges, as will be hereafter deſcribed; becauſe when land lies in ſuch a poſition, it is impoſſible for water to ſtand thereon

ten

ten minutes before it tumbles into the furrows, and the furrows immediately conveys it into the drains: and by a farmer keeping his land thus dry, conſequently adds to its heat, nouriſhment and fertility.

One great article in fertilizing land, is by breaking and dividing it into ſmall particles; whether this be done mechanically by the plough, manure, or laying it dry and warm, ſo as to cauſe a fermentation, it matters not; but eſſential it is (is very plain) to break and divide the ſoil into ſmall particles, for the free growth of plants, becauſe it gives the roots a free paſſage to ſearch for nouriſhment, and it is from the ſmalleſt particles of this matter, that they are nouriſhed.

Laying cold, wet ſtrong clay land in theſe high ridges, is the beſt method a farmer can deviſe, to cauſe a fermentation, and to make his land warm, free, open and mellow: ſtrong, heavy, ſouer, cold

cold clay land, only wants to be laid thus dry, and often plowed, to make it one of the fertileſt ſoils in the world.

Whereas, on the other hand, while it lies in its flat wet ſtate, (as I ſee it moſtly does all over Ireland) it is rendered more than half uſeleſs; for in this condition its chief crop or produce, is moſs, ruſhes, and a bad coarſe three-edged graſs, by ſome called ſpear-graſs; indeed it periſhes every kind of ſweet herbage, none ſuch will grow on it, on account of its cold cloſe nature, and retaining the water amongſt it; this is the evil that attends a ſtrong clay ſurface; but there is ſtill a worſe ſort of land than this, and that is, when the ſurface or upper ſtratum, for four or five inches deep, is of a looſe open black earth, or of a looſe ſand, and under that a bed of clay or cloſe earth, which will not admit any water to enter it.

Such land I ſay, is worſe than a clay ſurface; for this upper ſtratum being looſe and open, it immediately admits the rain to enter which ſinks 'till it comes at the under ſtratum, or bed of clay, but can get no farther, ſo lodges between the two ſtratums at the roots of the graſs or corn, &c. ſo conſequently periſhes any plants that is of a tenderer nature than ruſhes, moſs, ſpear-graſs, or heath, this is the conſequence with more than one half of all the lands in Ireland, but more abundantly on the North or North-weſt ſide of Dublin; the moſt of ſuch land lies on eminences or hills, which ſituation, one that does not underſtand it, might imagine it to be dry, but it is very deceitful, tho' nothing is more eaſy accounted for, and cured.

How can that be? ſays my reader, perhaps, and alſo ſays a great many that has anſwered me by word of mouth, does not our land lye in hills? has it not a deſcent or ſheed enough for

for water? does it not already repreſent a ridge, having as great a fall? do we not lay our lands in ridges too? &c. All theſe ſuggeſtions will prompt an Iriſh farmer to give a ready anſwer tho' perhaps not a truly digeſted one.

My variable anſwer to the queſtions that has been aſked me, through the many parts of Ireland that I have travelled, concerning wet land, &c. was in general as above, and my advice was to lay it in broad high ridges, but as ſuch variable directions might ſlip the memory, I am glad to have here an opportunity to give a more laſting memorandum, which may always be the farmer's guide upon recourſe thereto.

Above, my reader has the real cauſe of wet land, with its ill conſequences of periſhing the plants, encouraging moſs, ruſhes, &c. but if he lay his land in high ridges, as the following lines will direct,

direct, he may depend upon a real cure for all theſe his grievances.

The farmers of Ireland has no idea or notion of what the Engliſh farmers call ſole of ground; this by ſome is called under ſtratum, it lies next the corn mould, under the ſole of the plough, at about four or five inches deep.

This ought to be nicely inſpected into, upon all occaſions, and for ſeveral reaſons, as it is upon the goodneſs or badneſs of the ſole that the farmer's ſucceſs in his crop, in a great meaſure depends: as alſo, the ſole ought to be his guide, how to vary his crop, or management; neither can any man be a true judge in land, if he do not make himſelf truly acquainted with the under ſtratum.

I think I could, upon entering into any country or field, without digging, give a near gueſs what ſort of a ſole or earth lay under.

The

The ſole of the lands in Ireland varies greatly, and particular regard ought to be had to the following ſorts, viz.

Firſt, clay; which holds the water, and cauſes a wet ſurface.

Secondly, a red fox-ſand; this ſort loſes the manure, as it is of a dry, open looſe nature; (this will bear lying flat) ſuch a ſole ought never to be manured, but on the graſs.

Thirdly, a ſpewing looſe running earth, between a lome and a ſand; this is always wet and cold; it generally runs in a vein about a foot thick, and under it lies a bed of clay, perhaps four or five feet deep; in ſome places it has a firm thin ſhell of ſolid earth, between it and the corn mould: this is a very bad ſort to build, or make ditches upon, as they ſeldom ſtand long, for it gives way, runs, and lets them fall; this alſo ſhould not be manured,

but

but on the graſs, as the manure would ſink, run off and be loſt.

Fourthly, a firm red, hard caliſed ruſty earth, which will neither melt with rain or froſt; this is a very bad dangerous earth, and runs it to weeds. In England the farmers are afraid of diſturbing it with the plough, as it lies in ſome places, within three inches of the ſurface.

But I have often ſeen it thrown up in Ireland, out of potatoe trenches; but this was for want of knowing better, elſe they would not do it.

Fifthly, a lime-ſtone gravel; this is a good ſort, where it lies near the ſurface, the plough may turn it up to the benefit of the land.

Sixthly hard road gravel, this lies generally on mountains, under black heathy or moory ſoil, and lies near the ſurface, when there is not ſufficient of corn mould

mould, without turning it up, which may be done with ſafety, and indeed advantage, as there is no bad conſequences attending it, but a little poverty, which will be helped by mixing among the upper ſurface; it will alſo bring the upper ſurface to a better conſiſtency, which before was too light and fuzzy; this gravel ſole is generally very hard to plow in, and makes good road.

There is other lands which has no difference between the ſole or under ſtratum, and the ſurface being all alike of a deep warm, loom, clay or ſand.

Now we ſee through all theſe various lands, and not one of them will bear to be laid flat, except the ſecond and the laſt, which is both of a ſandy nature; all the reſt muſt be raiſed in ridges, ſo as to give the ſole as well as the ſurface a proper ſheed, and this is impoſſible to be done by any other or better method, than by gathering or taking

taking up the ridges three or four times together as need requires.

That is, begin every plowing at the middle of the ridge, and turn the right hand about 'till you raiſe them as high as you intend; harrow acroſs between each plowing.

This is apt to ſtrip the furrow of the rich and beſt ſoil; to remedy which throw a little more manure on it than common the firſt and ſecond year.

Being thus got into form, never alter them after, but take them up one time, and put them down another.

I do not remember ever to have ſeen in Ireland, a ridge taken up above once together, conſequently the ſole under their ridges is flat or level, having no ſheed for water, and tho' the ſurface of their ridge looks dry, yet the wet lies upon the ſole at the roots of this crop.

Now

Now were we to ſtrip the upper ſurface from one of thoſe Engliſh high ridges, we ſhould find the ſame ſheed for water under, as it had at top. In this caſe, there can be no reſt for water there; but were the like done by the Iriſh ridges, the under ſole would be level.

If the nature or ſituation of the land will admit, lay the ends of your ridges Eaſt and Weſt; and when on hills, never let them run ſtraight up and down, or get quite acroſs, but a little diagonally; there is two ways for the water that falls upon a hill to run off; the one is on the ſurface; and the other between the upper and under ſtratum or bed of clay; but when the upper ſtratum is looſe and open, it ſeldom runs off without entering it, except after a ſharp ſhower of rain, and even in this caſe, there is not much of it gets to the bottom of the hill without entering the firſt ſtratum, and when it gets there, its motion is very ſlow, in-

ſomuch, that before it gets off, more rain falls, which keeps it perpetually wet, and in mortar.

Now the improver's art muſt be, to make the run or courſe of all waters as ſhort as poſſible, before it comes into a drean; and this is effected beſt by laying it ridgways; for, ſuppoſe the ridge be thirty feet broad, the top of a ridge is within fifteen feet of a drean or furrow, being one at each ſide of the ridge, but tho' the run of water from the top of the ridge into the furrow, is only fifteen feet, yet a great deal will ſink till it comes to the under ſtratum or clay, becauſe that direction is perpendicular, and it has only five or ſix inches to go; this is all as certain as that a man's coat will be wet through, which is not above five or ſix feet long, and hangs perpendicular. By this the farmer ſees how neceſſary it is to give the under ſtratum a ſheed alſo, that the ſubteraneous water may have a ſhort paſſage into

its

its furrow; every time the land is taken up or gathered, the plough touches the clay, it makes a furrow deeper and deeper therein; thus every furrow is a drean to the ridge it belongs, and the water will find the ſhorteſt road into it; but the farmer muſt always be circumſpect, that he give the ſide of the ridge both upper and under ſtratum a greater ſlope or ſheed, than there is in the ſide of the hill, leſt the water run down the ridge, inſtead of turning into the furrow, as it certainly will follow the greateſt declivity; it is for this reaſon I have ordered the ridges to be made a little obliquely, and this obliquity or ſlanting ſhould be more or leſs, according to the form or declivity of the hill.

Theſe are eaſy and plain directions, and the ſucceſs of them is not doubtful but certain, and vouched by experience; and yet a great deal of land that might be made fruitful, is left to produce little or nothing.

More-

Moreover, the farmer has a great increaſe in the quantity of the ſurface of his ground; it is certain, the ſurface of a field meaſures more in quantity when in ridges than when flat, and it is equally certain, that all its ſurface is capable of bearing corn.

The ſucceſs and quantity of a crop does not depend upon the ſpace there is for the corn to ſtand in, but on the quantity of earth there is for its roots to ſpread in, in ſearch of its nouriſhment.

This is a ſhort ſtate of the caſe, no ſophiſtry can get the better of ſo plain a fact; and it is upon all theſe evident advantages that I recommend the farmer to lay his cold wet ſtrong land in ridges, &c.

CHAP.

CHAP. XVII.

Directions for Burn-beating in general.

WE may conſider burn-beating in two lights, namely, one for the improvement, and the other for the deſtruction of ground.

As for inſtance, he that pares and burns a piece of graſſy land of any ſort whatever, robs it of a great deal of its rich ſulphurous qualities, by ſending into the clouds the beſt and richeſt nouriſhment; and alſo reduces the corn mould to too thin a ſtaple, or ſhell for the corn to grow on, particularly if it be not of a natural deep ſoil aforetime.

But however, if it be ever ſo deep, it certainly weakens the land and ſpoils it in compariſon of what it would be, were ſuch land fallowed, and ſaid graſs and roots killed, and brought to a putrefaction

faction by tillage; for then it is permitted to retain all it's ſubſtance, and the ſame being mixed, mingled, or interſperſed amongſt the mould or earth, the ſaid putrefaction brings on a fermentation, and by the working of the two ſpirits, they divide and open the particles thereof, and will bring ſtubborn, ſtrong earth, or clay, to a friendly good mellow earth: beſides if the graſs be killed by tillage or fallow, every time the furrow is turned up, the air is helping, aiding and aſſiſting to inrich it. See vol. i. p. 3.

If the farmer duly conſider the force of this argument, and how eſſential it is to retain the ſulphurs and richneſs of the ground, inſtead of ſending them by fire and ſmoak into the clouds, he certainly would not deſtroy ſuch fine thin ſkinned land, as I have frequently ſee done through Ireland, by burning, which is a vile cuſtom, and a deſtruction to ſuch land.

It

It is true, he may get one good crop or two, but after that it will be ſo much ſpent that it will be hard to recover it, without great loſs of time, money and manure.

Now, tho' my reader ſees how detrimental burn-beating is to ſuch graſs-land, yet in an oppoſite caſe, it may be done with great advantage to the land and it's owner. That is when the land is deep, wild, coarſe, ruſhy, heathy, boggy, or mountainy; in this caſe it is in it's wild ſtate, as nature found it; ſo it is when ſuch land is over-run with heath and ruſhes.

It muſt be burned to deſtroy the wild nature thereof, and convert theſe enemies to a friendly manure, which is almoſt impoſſible to be done by fallow, as their roots penetrate ſo deep, and incorporate ſo ſtrongly with the earth.

Their vegitating or growing quality and ſubſtance cannot be effectually ſtop-

ſtopped, killed and routed in the courſe of one year's fallow; therefore I ſay it is better to reduce ſuch ſtubborn enemies by fire, than to wait a long time for them to be rotten, and tore, or ſhaken to pieces.

By the foregoing obſervations, it is eaſy for a farmer to judge which to burn, and which to fallow.

Moſtly all over Ireland land is given to wet ſo conſequently to ruſhes.

Now what a farmer ſhould do with ſuch land is this, viz.

Plow it with a good ſtout furrow, about four inches thick, and eight broad; and when he comes at a tuft of ruſhes, if he finds the ſaid four inches will not go under the roots, order the plowman to give a dip with his plough 'till he gets under them. This is eaſy done, becauſe the roots of ruſhes does not ſpread horizontally, much farther than

than the tops, but they ſtrike perpendicular a good depth.

When the land is thus plowed, the fine part thereof treated in every degree as fallow, plow it if poſſible ten or twelve times. And in the courſe of the ſummer fallow burn the roots of the ruſhes, which is no hard matter to do, they having ſo much root, matted, wove or intermixed with the ſod, therefore will both burn well and produce a great deal of aſhes, which together with the fallow will ſweeten, and give the ſoil ſuch a dreſſing, that it will almoſt retain it for ever, particularly if it be laid in high ridges, as directed under the head for wet land.

The Directions for Burn-beating, viz.

When the farmer has fixed upon the land for burning, he muſt firſt cut it a-croſs with cutting knives fixed in a roller, as directed in vol. i. p. 218.

or for want of this, take a ſharp coulter, and fix it in an old plough without a ſock, let the coulter ſink as deep below the ſole of the plough as you intend to pare the ſod thick; with this go croſs ways of the land, and cut each ſcore within two feet of each other, that when it is plowed it may turn up in ſods that length. If the ſeaſon be dry, they will burn without ſetting up; but if wet, they muſt be ſet on an edge, two together, propping againſt each other; and when in burning order, gather them in heaps, about a cart-load in each, and with ſome ſort of kindling, ſuch as firs, turf, &c. and all the time it is burning, men muſt attend it, in order to keep laying ſods on where the blaze breaks out; as the judgment of burning is to keep or retain as much of the ſalts or nitre within the aſhes as poſſible, and this is done by keeping the blaze ſmothering within, for the more it breaks out, the more of the ſmoak and ſulphur aſcends the clouds. When

When thus burned, there is no more to do than ſpread the aſhes even, and then plough the ground thin, ſo as not to bury the aſhes too deep, and ſo ſow it with rape, turnips, or what you pleaſe.

CHAP.

CHAP XVIII.

Remarks on Burn-beating in general.

AS I obſerved in the foregoing chapter, burn-beating is only to be uſed for one ſort of land, namely, ruſhy, heathy, wild and unimproved bog, and deep mountain, to ſuch it is a great improver.

In the firſt place, it completely clears the ground of weeds, ruſhes, heath, or rubbiſh of all ſorts.

Secondly, it converts theſe very enemies to a friendly manure of the richeſt kind, for the production of crops, to which, before, they were mortally averſe.

Thirdly, the burning the ſod, on the ground, warms it, by which means the earth is ſet a working, and brought to a ſeparation; ſo that the ſalt or nitre thereof

thereof has a free communication to the roots, and the ground is nouriſhed and ſweetened.

Such burnt land will bring two, or perhaps three plentiful crops.

Indeed nature will not ſtop, till ſhe has exhauſted herſelf of her virtue to ſuch a degree, that one kind of manure will ſcarce relieve it, therefore muſt have a mixture of two or three ſorts, in order to ſet their different ſpirits a working together, by which it will the ſooner incorporate with this worn-out ſoil, and make it anſwer for a crop, and particularly turnips, which is the beſt crop that can be ſown on ſuch ſpent land, to bring it into heart, by eating the turnips on the ground, and the year following ſow it with barley and clover.

Were my brother farmers to ſuit this burnt-land with proper crops, there would not be ſo much danger of running

ning it out; and this they may do, with great profit to themſelves, and advantage to the land; it is a prevalent opinion amongſt the Engliſh farmers, and I think reaſon backs it, that burnt land ſhould never be ſown with more than three crops before it is laid down.

The firſt rape or cole-ſeed. The ſecond turnips. The third and laſt barley, and laid down with clover.

Theſe are three very profitable crops, and the two firſt are great improvers, and ſo is the clover.

Theſe crops I am certain, add ſtrength and vigour to the land, particularly if the turnips be eat thereon.

But were the ſaid land ſown with three crops of corn ſucceſſively, it would ruin it to all intents and purpoſes; inſomuch, that it would hardly leave it recoverable; and yet the

the firſt mentioned crops are by much the greateſt profit to the farmer.

If ſo, there certainly can be no other reaſon for a farmer's ſpoiling his land, than a poſitive ignorance.

The farmers in England avoid raiſing corn from burnt land, as it does not ſell high, having a coarſe thick ſkin, and will not yield well in flour.

But indeed, the Iriſh farmers are not over and above delicate in regard to their grain, either in chuſing plump or thin ſkinn'd corn for ſeed, or in winnowing it clean, which is a very material point to the look of corn for ſale.

Let corn be ever ſo good, if it be not well cleaned, and the light corn tallied out, it will not be fair to the eye; but on the other hand, tho' the grain ſhould be but indifferent, if it be well handled it greatly helps it both in look and value.

I have

I have known Ireland many years, and have ſeen ſome hundreds of people winnow, but never ſaw one yet go in a handy right way about it, except at a gentleman's houſe, where they have been directed by Engliſh ſtewards, and very ſeldom in this caſe, for except a man be endued with the patience of Job, to perſevere in the taſk of his directions, he muſt be tired out; for many of the common people are like a head-ſtrong mule (pardon the expreſſion) that will neither lead nor be driven out of their old road.

Indeed I have taught ſeveral of theſe obſtinate ſons of Adam, to follow the Engliſh method, in ſeveral branches of huſbandry, yet I never could get any thing rightly executed by verbal directions; my method is always to ſtand by 'till I get a pattern done to my mind, tho' it ſhould be done and undone ſeveral times, before it can be brought to bear.

But

But indeed, I generally ſet a pattern, with my own hands, and then ſee that they repeat it; for I conceive that it ſaves much trouble to ground a learner thoroughly in the beginning, alſo to uſe perſuaſive arguments with a mixture of good-natured authority. By theſe, and ſuch like methods, I think I could get any deſign well executed.

But indeed, a good deal depends on a farmer's being a judge, and a handy man himſelf. It is true, he may go into the field amongſt his men, and ſee his horſes badly harneſſed, and his plow-man make bad work, and tell him ſo; but what does it avail, if neither maſter nor man can ſet matters to rights.

He is the right farmer and maſter of his buſineſs, who can right every thing that is wrong with his own hands.

No man ought to think himſelf above doing this; particularly, if he pretend to inſtruct others at all. It is no ſhame to any one to be uſeful and ingenious, let his ſtation in life be what it will.

CHAP.

CHAP. XIX.

Remarks on the folly of burning Stubble (recommended by ſome Authors)

I Have omitted in my receipts of farming, a cuſtom uſed in ſome places, by farmers burning the ſtubble on the ground, which is called baſtard burn-baiting.

But I did not chuſe to take notice of it, as I take it to be a bad piece of management, and which ought to be condemned by every thinking perſon. I am therefore the more ſurprized to ſee it recommended by ſeveral writers on huſbandry.

Such authors ſhould conſider that ſtubble is not like ruſhes, heath, or weeds of any kind, that are noxious in their nature, and whoſe deſtruction is of benefit, independant of the manure, into which they are converted, and which

which they yield in large and rich quatities by means of their ſubſtance and verdure, being repleniſhed with ſalts, oils, and ſulphurs. But this is very far from being the caſe with ſtubble, it is half dung, and in no danger of growing.

As it is light and dry, fire inſtantly diſſipates it's contents into air; and with reſpect to the warmth that the blaze may communicate to the ground, it has neither the intenſeneſs nor virtue of a ſingle hour of a ſummer's day.

But if the ſtubble or ſtraw was plowed in, it would rot and yield all the ſubſtance that it has in manure.

CHAP.

CHAP. XX.

The perfection and management of Burnet.

THE world is obliged to one Mr. Bartholomew Roque, who has for many years laſt paſt, been a farmer near London, but is a native of France. I mention his place of abode, becauſe the lands and climate near London, differ greatly from thoſe in Ireland and the North of England.

In 1761 was the firſt time this plant was cultivated for the uſe of cattle, it is a pimpernell, and commonly cultivated for ſallad, has a ſmell very like green cucumber; its ſeed is rough, like ſpineach, and much about the ſame ſize, its ſhape is a triangular oblong; the plant never grows high, being of a ſpreading creeping nature, and has a very buſhy top; it alſo has a long root, and runs perpendicular, therefore requires

requires a deep ſoil. Mr. Roque's account of it is as follows:

Says he, it muſt be ſown on ſandy or gravelly ground, and the longeſt drought will not hurt it, it alſo will either grow or keep green all winter; it will grow to about half a yard long in the winter half-year, it may be mown twice in the ſummer, and will produce two crops of ſeed; it may be fed all winter with ſafety from killing the plants; ſheep muſt not be allowed to crop it too cloſe, leſt they damage the root. The ſeaſon for ſowing it is from February to July. It will bare tranſplanting, but it muſt be ſown the broad-caſt way; it muſt alſo be trenched two or three ſpades deep, but take care, ſays he, not to turn up dead ground. Sow twelve pounds of ſeed on an Engliſh acre; harrow the ground before ſowing, and lightly after; when the ſeed is ripe, threſh it between wet and dry, the hay is very good feeding for all ſorts of cattle. He ſays, that

if

if it be laid up for meadow, in May, it will be ready to cut for ſeed the beginning of July. If it be mown for hay, (having no regard to the ſeed) it will bring three crops in a year, and muſt be cut for hay, juſt before it begins to flower; it muſt be made for hay like any artificial graſs.

Such is Mr. Roque's account of burnet; and as he has a right to know better than any other perſon, being the firſt introducer, I ſhall neither add or diminiſh from his experience.

However, I cannot help taking notice, that if we cannot raiſe burnet to perfection without digging two or three ſpades deep, (as he directs,) I am afraid the expence will over balance the profit, ſince an acre of ground by ſuch digging or trenching, and that only once over, will coſt about ſix pounds, beſides ſeed, manure, land-rent, and all other expences. Again, if we be to take care, and not turn up any dead

dead ſoil, we muſt not go above five or ſix inches deep, becauſe, in fact, all that lies below the upper ſtratum, or corn mold, is dead earth, till it is turned up to the air, and incorporated with manure or roots of ſome ſort, for theſe are the principals that muſt enliven, ferment, and bring it to an active body, for till then it is a dead body.

So that in ſhort, I cannot tell what ſort of ſoil Mr. Roque expects us to work in, except in gaarden-mould, whoſe upper ſtratum or ſurface, is kept two or three feet deep by conſtant trenching.

I rather think he ſhould have told us to take care, and not throw up the under ſtratum, except it can be done with ſafety, not to hurt or ſpoil the corn mould, which it certainly muſt do, if it be a hungry, cold, red clay, or ramill. If this be the caſe, as doubtleſs it is, the farmers of Ireland muſt

muſt firſt examine how deep the ſtaple of his land is, and fix upon that which ſuits it beſt, being the good deep ſort. It is true, a ſtrong clay bottom may be made to anſwer for it, but it muſt be by the dint of labour and manure.

CHAP. XXII.

On Pickles for Wheat.

THERE are a great many receipts, and various methods taken to preserve wheat from smutting, and to add to the fertility of its growth.

The most common method is, to steep it in pickle, strong enough to bear an egg for twelve hours, then lime it till it be dry enough to part freely.

Others add to this pickle, for every fifty gallons, three pounds of copperas.

I have steeped wheat in train-oil, but his is expensive, neither do I think it is of any service to prevent smut, but however it adds greatly to its fertility.

Others

Others only wet their wheat in chamberley, and limes it, then ſows it: but the moſt effectual receipt I ever knew, heard of, or practiſed for preventing ſmut, and adding richneſs to the ſeed, is as follows, viz.

Take a hogſhead, and let it into the ground, with its top even with the ſurface, and have a moveable cover thereon.

In this keep chamberley, from one ſeed time to another, the older the better; and add to it all the galls you can get, either of fowl or cattle. Likewiſe, to every ten gallons of liquor, put two ounces of the balſam of ſulphur, and ſix ounces of the oil of turpentine, mix them well together.

In this ſteep your wheat twelve hours, draw off the liquor, and return it to the hogſhead, for it becomes much more valuable by age.

Lime

Lime the corn till it is brought to a proper conſiſtence for ſowing; when thus done, ſow it.

I might add ſeveral other receipts, but it is needleſs, as none can be better, cheaper, or eaſier got than this.

CHAP.

CHAP XXIII.

On different kinds of Manure.

MR Tull tells us (and very warmly ſupports his aſſertion) that dung is a uſeleſs article to a farmer, and recommends tillage before it; but daily experience tells us, he was in ſome degree miſtaken, for tho' I admit, and am as clearly ſatisfied, as he could be, that plowing will enrich or fertilize land to a great pitch; yet, I am well convinced, that dung, manure, or compoſt of any ſort, which bears a proportion of ſalts or fertilizing ſulphurs, will cauſe a fermentation, by adding to, and mixing the ſalts of the air, therefore doubtleſs adds to enriching the ſoil.

Again, tho' reaſon ſpeaks ſo much in favour for enriching the ſoil by plowing, and tho' Mr. Tull, and all the author's in the world was to make it as

as plain as one and one makes two, that tillage is ſufficient to make poor land rich enough to bring onions (as it will) yet nine tenths of the farmers would not follow it, and tho' a farmer may give his land a good dreſſing, fit for any crop by twelve plowings; yet he would rather beſtow three or four pounds an acre in manure to put thereon. So blind is man to his own intereſt, particularly if it lead out of the old road.

For my part, I am of Mr. Tull's, and ſeveral other authors opinion, therefore ſhall not manure corn-land, but enrich that by plowing, and lay the manure upon graſs-land; where reaſon tells us it is of the moſt uſe for ſeveral reaſons.

Firſt, becauſe graſs-land lies in a cloſe ſolid body, therefore is deprived of the enriching qualities of the air which plowed land enjoys or receives every time it is turned up.

Secondly,

Secondly, it nouriſhes the roots of graſs, and ſuppreſſes or retards the growth of moſs.

Thirdly, it is obſervable, that manure always ſinks, therefore if it be laid on when in tillage, it is an equal chance, but one half of it will be loſt, becauſe, what the plow turns to the bottom of the furrow ſtill keeps ſinking lower and lower, till it get out of the reach of the plow to turn up, or plant to feed upon; but on the other hand, when it is laid on the graſs, or lay-land, it dreans through the ſurface in its paſſage, ferments with, and lightens and opens the earth, and makes it rich and mellow.

All theſe reaſons muſt appear very plain and obvious to a farmer's underſtanding, and which I would have him to bear in mind, and when he reads over the following liſt of manures, he may the more eaſily determine with himſelf, how to adapt this

or

or that to its proper ſoil or part of huſbandry.

Any thing that has the moſt ſalts or nitre, is the richeſt manure, and therefore a leſs bulk is required to be laid on the land.

As for inſtance, ſome ſort of marl requires to be laid nearly as thick as the plough goes, and others not much thicker than lime, being ſo ſtrong, that were too much laid on, it would overpower or deſtroy the land to ſuch a degree, that nothing would grow well for two or three years after.

Few farmers but what may know which is the beſt manure, and the eaſieſt come at, according to their own ſituation, therefore ſhall leave them to judge for themſelves, which ſuits their purpoſe or ſituation beſt.

Horſe and cow dung, (reaſon muſt be his guide here,) is good, almoſt for every

every ſort of land and grain, but the former is the hoteſt in nature, therefore muſt to chuſe, be laid on the coldeſt land; every one knows beſt what condition his land is in, whether rich or poor, for thereto it muſt be ſuited in quantity.

Pidgeon-dung is a very rich manure, and will bear land-carriage better than moſt others, as a little will go a great way. In England it will ſell from ten to thirteen pence per buſhel, ſixty of which will give an Iriſh acre a good dreſſing; it muſt be ſown upon the ground, and harrowed in with the grain.

Thoſe that would make the moſt of a pidgeon-houſe, ſhould ſpread over the floor, every ten days, three or four buſhels of aſhes, which will help to keep the pidgeon-dung from caking together, and make it ſpread even, and go farther.

Hen or fowl's dung, of all ſorts, ſhould be mixed with aſhes, for the above reaſon.

Little-houſe dung is one of the richeſt ſort of manures, but the leaſt regarded, on account of its ſoft ſtinking quality; but this is eaſily cured by throwing a ſufficient quantity of roach lime into the little houſe, which will dry it to ſuch a conſiſtence that it will ſpread as well as aſhes, and have no diſagreeable ſmell.

Forty buſhels will ſpread an Iriſh acre, harrow it in with the corn.

Soot is a rich manure for any kind of land. Writers differ greatly in their opinion, whether coal or wood ſoot be the richeſt or beſt, but this is throwing words to the wind, as no one will change his fuel for the ſake of the difference in the ſoot; the matter is ſo trifling, that it is not worth entering into any particulars about it. Soot is

ſoot,

ſoot, and he that lays twenty buſhels on an Iriſh acre, of any ſort of ſoot, gives his land a good dreſſing, and leſs will not do: it muſt be harrowed in with the corn, or it may be ſpread after the corn comes up, and it will deſtroy red worms alſo. It will do very well for meadow, provided it be laid on juſt after the hay is got off.

Aſhes is another good manure for a crop or two, and particularly for turnips, as turnips from burn-beating are the ſweeteſt and beſt of all others.

Aſhes are raiſed by ſeveral means, and from various principals. Some by burn-beating, others from our conſtant firing, ſuch as coal, turf, or wood. The richeſt of theſe is wood; the next in value is turf, and the worſt of the three is coal; tho' between turf and coal there is no material difference; all ſorts of aſhes loſe much of their ſtrength by being thrown out of doors to get wet; a hundred and ſixty buſhels of

of wood-aſhes, and two hundred and twenty of either turf or coal is the due for an Iriſh acre; and ſo in proportion for an Engliſh one.

Burnt clay, or backs of ditches, is another forced manure; about three hundred and twenty buſhels on an Iriſh acre, being two buſhels to each ſquare perch, will give land a tolerable good dreſſing.

Now I come to treat of the mother of all manures, namely, ſalt; for every ſort of manure is higher or lower in value, according to the ſalts it produces; and every ſort of manure is proportioned to the land according to the quantity of ſalts or nitre it is thought to have in it, and not to the bulk.

Formerly ſalt was thought to be an impoveriſher of land, but experience has taught wiſdom; it is now found to be otherwiſe, provided it be duly proportioned to the ſtate the land is in,

in, and mixed to molify it as follows, viz.

Take ſix buſhels of ſalt, ſix buſhels of lime, and ſix buſhels of dry aſhes, mix all together, let them lie ſome time to incrporate together, then ſpread them on the land, and harrow them in with the ſeed; this is ſufficient dreſſing for an Iriſh acre, for it is better to repeat it, than to lay too much on at once.

By being thus mixed, one particle incorporates and molifies the other; ſalt in itſelf is rather too ſevere and harſh in its nature, and if laid too thick on, might prove of bad conſequence; whereas, if conveyed into the earth by a ſoapy ſmooth method, will prove the very enricher the earth wants, to ſet forth vegetation.

I am convinced, if a farmer was to mix ſalt with any ſort of earth or manure, and let it lie long enough to

in-

incorporate, he might lay it on thinner in bulk, in proportion to the ſalts it contained, and he would ſoon find his ends in ſo doing.

Sea-weeds, ſhells, fiſh, ſea-water, ſea-ſand, all theſe bear a proportion of ſalts or nitre, therefore muſt be eſteemed a manure.

Old rags, rotten ſticks, or in ſhort, any thing will make manure, that will rot or putrify, for by ſuch comes on a fermentation with the earth; and by croſſing nature in any caſe, makes it work, ferment, and divide the particles of each other. Even taking one piece of ſoil ten or fifteen perches from the ſpot, and mixing it with another piece in the ſame field, will ſet it a working, ſo that one will help the other in fertility.

Lime is a manure known by every one, tho' but few know rightly how to proportion it to the land, as ſome

land

land will require more by twenty buſhels an acre than others; and on the other hand, a hundred buſhels of ſome lime will be ſtrong, and give the land as good a dreſſing as an hundred and thirty of others. A farmer muſt conſider all theſe circumſtances before he can be a thorough judge how to dreſs his land properly.

An hundred and ſixty buſhels being one on every ſquare perch, is ſufficient for the worſt land in Ireland at one dreſſing; but if the lime be ſtronger than common, lower the quantity 30 or 40 buſhels.

The way to try lime-ſtone is by dropping a little aqua-fortis on every ſtone, that is likely, and if it hiſſes and froths it will make lime, but it will take no more effect on any other ſort of ſtone than water would.

The beſt way to try marl; lime-ſtone gravel, &c. is with vinegar: take a glaſs of vinegar, into which put

put a little marl or lime-ſtone gravel, and if it be good, it will work up, froth, and fly in ſparks over the glaſs like champaign, and make a noiſe like new barm; but if the earth be poor, the vinegar will take no effect, but the earth will fall to the bottom, and the vinegar will be fine above it.

Soaper's waſte is a very good manure, about twenty tons is ſufficient for an Iriſh acre.

Large quantities are made uſe of about Liverpool, which is taken over from Dublin for ballaſt of ſhips. They generally ſell it for about three ſhillings a ton.

Aſhes made of weeds, for the time it will laſt, is nearly as good manure as can be laid on land, and there are few farmers but have plenty of it about their houſes; but the way to make the moſt of them, is to dig them up by the roots, and take a ſod along with them;

them; by this they will make a greater quantity of aſhes, and the roots are fuller of ſalts than the top.

Forty buſhels will give an Iriſh acre a good dreſſing; harrow them in with the grain, or they may be ſpread on green wheat any time in winter.

The compound of manures as follows, I have tried, and find to be a great inricher, and very cheap, viz. Take eight buſhells of bay-ſalt, the like quantity of lime, and the like quantity of aſhes, mix all theſe together, and let them lye two or three days in a heap: if you intend it for corn-land throw up the corn-mold in the middle of the field you intend to manure, to the bulk of about ſixty buſhels, with this mix the compound well, then clap it up cloſe in a heap, and turn it every week 'till you lay it on the land; the oftener you turn it the better, as the air will aſſiſt the different particles in working and ferment-

ing together. If you provide it ſix or twelve months before it is wanted, the better and ſmoother it will be.

If you would lay it on lay land, mix it with backs of ditches, or the like, in the moſt convenient place for carriage; the beſt time to ſpread it on the meadow-ground is abouut Michaelmas; but if corn land, harrow it in with the ſeed; this is a due quantity for an Iriſh acre. The expence in the middle of Ireland would be about twenty ſhillings.

CHAP

CHAP. XXIV.

A Receipt to kill red Worms, ſo deſtructive to green Wheat.

TO one acre take five barrels of ſoot, mix with it three pounds of copperas well pounded, ſow or ſpread it on the land when the corn is about being weaned from the kernel.

If ſoot is not to be had, take the bulk of two or three wheat ſheaves of wormwood, dry it in an oven, or otherwiſe, ſo that it will bruiſe to powder, with this mix three buſhels of common ſalt, four buſhels of quick or powder lime, and three pounds of copperas bruiſed to fine powder, mix theſe all together, then ſprinkle among them three ounces of the balſam of ſulphur, then again mix all well together, and let them lie in a heap nine or ten days to incorporate or ferment. Sow it on the land in a calm morning, as you would

would corn, and the duſt will cling to the blades of the corn, and trickle or run down to the root thereof, ſo conſequently muſt make the ſtem nauceous to their taſte, and tho' it may not immediately kill them, yet it will anſwer the end propoſed, as it will prevent them from doing damage.

It is a farce to ſay, that ſalt will damage green corn, as I heard objected; I have tried it ſeveral times to the amount of ſix buſhels to an acre, and I never found the leaſt ill conſequences attending it, but it muſt not be laid on unreaſonably thick; always obſerve the directions given, or there is no anſwering for the event. This is alſo a good manure, as well as for the above purpoſe.

Note, ſince my firſt edition was printed, I have made a further trial on this ſubject, and find this to be the beſt receipt.

CHAP.

CHAP. XXV.

An Explanation of Names.

I Have kept up as much as poſſible, to the Iriſh phraſes, or names for implements of huſbandry, &c. but as neceſſity obliged me to make uſe of ſome to which they were ſtrangers, I ſhall explain them in the following few words, viz.

Breaking and ſwingling are the Engliſh terms for dreſſing flax out of the rough. In Ireland it is chiefly known by breaking and ſcutching.

Rating is the Engliſh phraſe for watering flax; but in Ireland the word bogging ſtands for that of rating or watering flax.

Gripeing is the Engliſh term or name for ſmall ſurface drains, made to take off the downfalls of water from corn or graſs-land. Tak-

Taking up land is an Engliſh term for raiſing ridges high in the middle, by the plough, when the horſes turn to the right hand about, by beginning in the middle of the ridge.

Putting down is when they begin in the furrow, to plow and ſplit the ridge in two, leaving the furrow in the middle, by turning the left-hand about.

When the Engliſh flax-farmers recommend their flax for its goodneſs, they generally ſay it has a good ſtrong clear open harl; this harl is the ſkin or flax which peels off from the ſtalk from one end to the other, without breaking; this is called the harl.

A quarter of any ſort of grain is two barrels, eight buſhels, or thirty two pecks, Wincheſter meaſure.

Ketlock-ſeed is a black round ſeed, much like rape-ſeed; it grows as a weed

weed with a yellow flower, and in Ireland is called bruſhebuy; it is full of oil, and would ſell at the rape-mills to make oil of.

CHAP.

CHAP. XXVI.

Directions how to plow with one Man and two Horses.

AS to plowing with two horses only, and one man to drive them and hold the plough, there is nothing more easy, and what is commonly done in several parts of England: I have introduced it to several gentlemen in Ireland, by which a great many petty farmers has fallen into it; and hope in time it will be general, which must be a great advantage to the farmer and the kingdom in general.

There are a great many sorts of ploughs in England, but these are allowed to be the best, comes at a low price, and are least subject to be out of order, when once fixed.

The method of yoking a pair of horses to the plough is this, viz.

Place

Place them ſide by ſide as in the cut; faſten their traces on a pair of ſwingle-trees, or by ſome called a knot of geers; let their traces be ſo ſhort, that they will juſt have room to walk without hurting their heels with the ſwingle trees.

Have the ſame regard in yoking the ſwingle-trees near the beam of the plough, not to leave above two or three links between the hook of the ſwingle-trees and the muzzle of the plough, for the nearer the cattle is kept to their load, the eaſier it follows.

Being thus fixed to the plough, tie to each horſe head a ſtring, leaving their heads at the moſt not above eighteen inches aſunder.

After which, fix your whiping ſtrings, one to the off-ſide bridle-bit of your right-hand, or furrow-horſe; and the

other to the near-ſide bridle-bit of the left-hand or land-horſe; run the ſtrings through the holes made in the hems, on the ſame ſide the ſtrings are faſtened; the ſtrings muſt reach to the handles of the plough, in order for taking hold of, to guide and whip the horſes.

Their heads being faſtened together, pull either ſtring you pleaſe, and they both follow, much the ſame as two horſes are drove in a coach.

The whipping ſtrings are about the ſize of a ſmall jack-line, made of good ſtuff: to theſe cords are fixed handles, four feet long, made of hemp, and are taper, much like a whale-bone whip, the thick end about two inches diameter, in which is made an eye or nooſe, to hang on the handles of the plough.

This handle gives the ſtring a fall, ſo that it will cut a horſe ſurprzingly; therefore performs the office both o whip

whips and guiding reins, which makes it very eaſy to the plough-holder, as there is one hanging upon each handle of the plough, ready to take hold of.

Theſe two horſes and one man will plow as much and as well as double the number.

This is plain to me, and to every one who follow the two-horſe plough: but were I talking or wriring to eternity, I am afraid it would be impoſſible to perſuade men to it without ſeeing it put in practice.

The anſwer would be, it might do in ſome countries, but it would not do here.

Thus I was anſwered in ſome places in Ireland, and even laughed at when I firſt ſet out two horſes in a plough, and one man to plow and drive: but in ſpite of all their perverſeneſs, and un-

unhandineſs, I made them in two hours time plow very well; and they have ſtuck to the ſame method ever ſince; and I find it ſpeeds conſiderably where farmers has an opportunity to ſee it practiſed. For fuller directions of yoking, ſee the cut.

A monthly Calendar, or Memorandum of works to be done as they come in ſeaſon round the year; ſo that leſt a farmer may forget himſelf, let him look for the month he is then in, and he will ſee what works ought to be going forward. The Reader is deſired to take notice, that the intent of this Calendar is to remind him of the work, but as to the management, he muſt turn to the chapter of the work he would do, for directions thereon.

JANUARY.

IN the beginning of this month, plow the fallows that miſſed plowing in Autumn.

Plow for beans and peas; take the ridges up to lie dry; toward the latter end of the month ſow them, if the weather permits.

Until

Until this time, eat the clover with ſheep, or light cattle, ſo as not to tread it, but know it muſt be laid up to get a head againſt ſpring, for early lambs, &c. or meadow.

Flood your marſhy low land, or any other whereon you can turn water. In order to do this, take in the water out of any river or drain, at the higheſt part of the field; convey it firſt along the head of ſaid field by a ſmall ſurface gripe or drain, about a foot wide, and the ſame deep; at about every ten yards diſtance, cut with a plough, a furrow ſloping-ways of the hill, ſo that when the furrows is full, the water will flow over at the loweſt ſide; this is eaſy done, as there is few fields but what one ſide is higher than another.

If the weather be froſty, carry out dung; leave it in heaps, ready for ſpreading when the froſt is gone.

Lop

Lop top and plant foreſt-trees of all ſorts, plant quickſets, and make and repair your ditches, clear your water courſes.

Kill and ſave bacon, hang-beef, and hams.

At this time, and from Michaelmas, is a good time to repair quickſet hedges, by laying the thorns down in gaps, or open places where the fence is thin at the bottom nick the thorns two-thirds of the way through, in order to make them bend and lie eaſy, by which they will be ſurer to grow than if they were bent without nicking, which would bruiſe and wound the wood, and prevent the ſap from riſing paſt the bruiſed place; whereas, if it was cut as thin as half a crown, provided the uncut wood bent eaſy, without bruiſing the ſap, would circulate through the narrow uncut place to the branch, which would flouriſh and ſpread along the bottom of the hedge, and make a good fence. This

This in England, is called ſplaſhing. The labourers in Yorkſhire, and Lincolnſhire are very expert at it; if the hedge be ever ſo ragged, and thin, provided the tops will meet, they will make a good fence, which the year after will almoſt turn a hare, when the young fibres ſhoot out.

But this piece of dexterity is not univerſal in England; and in Ireland I never ſaw any of it; though few people in the world go to greater expence in planting quicks, and making ditches, &c. than the Iriſh.

Continue to break and ſwingle hemp and flax.

This is the beſt time to threſh out barley, as it is wanted for malting, and the ſtraw, which is not quite ſo good as oat ſtraw, will eat beſt in hard weather.

Early

Early lambs are now dropping, turn the ewes to turnips, if you have any, which will fatten the lambs quickly; but if the weather be wet, and the ground ſoft, it will be too cold for the lambs; in this caſe, pull the turnips, and take them to the ewes on graſs land, but have no regard in this caſe for wethers, as they will feed better on the ground where the turnips are faſt at the root, which keeps them freſh and juicy, and from rolling about in the dirt as they ſcoup them.

Remember to throw roach lime into the hole of the little-houſe, to prevent it from ſmelling, and to dry the dung ſo as to make it ſpread when laid on the land.

Remember to ſend men to pick up the ſhells, or bottoms of the turnips, that they be clean eat up, before you make a freſh break.

Remember your bees, and if weak, feed them with cakes made of malt-flour, mixed up with ſweet wort, or a cake made of rye meal, mixed with treacle-water, or give them brown ſugar. Alſo turn up the hive, and ſprinkle it well with ſweet wort, or treacle water.

Plow your barley fallow for the ſecond time, as I ſuppoſe it was plowed in Autumn to turn the ſtubble under.

Towards the latter end of the month, if the weather be open, ſow vetches, whether for ſeed, fodder, or feeding on the ground; but if for feeding on the ground, they would have been better ſown in the latter end of the ſummer, as directed under that head.

Houſe your weanling calves and foles, if not ſooner. Dreſs your meadows. Cut and ſpread ant-hills, by which the

the ants being expoſed at this ſevere ſeaſon will be deſtroyed.

Look after your pidgeons, feed them and ſpread aſhes on the pidgeon houſe floor, to keep the dung from caking.

FEBRU-

FEBRUARY.

SOW beans and peas, which ought to be done, if the weather permit, before oat-ſeed time.

Towards the latter end of the month, if the weather be open, ſow oats.

The rye that miſſed ſowing in Autumn, muſt be ſown at the beginning of the month.

Plow your barley fallow, if not done laſt month, tranſplant rape ſtalks.

Continue to ſplaſh quickſet hedges.

Lay up your meadows, clean them from all ſticks, ſtones, and rubbiſh that may be obſtructive to the ſcythe. Spread and break horſe and cow dung, ant-hills and mole-hills, which is done in a cheap eaſy manner with a molding-ſledge.

Look

Look over your wheat land, leſt any water ſtand by the ſtoppage of ſods or ſtones falling into the furrows and gripes.

Set oziers, poplars, willows, and other aquaticks, lop trees, plant quicks, open half the paſſage of your bees, gripe and drain the wet lands, look that no water ſtand on your crop.

Your forward fat lambs will now begin to be ready for the market; do not keep them too long, for what they gain in ſize they loſe in price, as the markets drop when the ſeaſon advances, beſides, if they are off early, the ewes may be fed on clover, and be ready for market early alſo.

Set potatoes, to come in early. Lay them firſt, and cover them well with long horſe dung, to preſerve them from the froſt.

Con-

Continue to break and ſwingle hemp and flax, and peel winter hemp.

Begin to beat the ſeed out of the flax and hemp.

The dew-rate flax muſt now be ſpread on the graſs: the ſnow, froſt, and rain rates it well.

Remember to feed your bees, turn the hive up, and ſprinkle the combs with ſweet wort.

Continue to ſpread ſoot on your wheat, to kill the red worms, at the rate of five barrels to the Iriſh acre.

This is a good time to lay any ſort of ſhort dung on your wheat land, ſuch as aſhes, pidgeon, rabbit, and hen-dung; but do not lay lime on without mixing as directed,

ed, leſt it burn the blades of the wheat.

You muſt not defer brewing your keeping-ſtrong-beer any longer.

MARCH.

MARCH.

THIS is a very buſy month with the farmers, and it behoves every one to beſtir himſelf, to get the proper crops into the ground in due ſeaſon.

Plow for, and ſow oats, if clover be to be ſown among them. When the oats are harrowed well, ſow the clover ſeed, and buſh-harrow it; but I take it to be the beſt way to defer ſowing it till the oats are come up, then ſow the ſeed and roll it in.

If the ſeaſon be good (but not elſe) ſow barley.

Sow muſtard-ſeed; the ground, if ſtubble, muſt have two plowings, but it will grow with great ſucceſs on lay-land if good, with once plowing, harrow it well before ſowing, and after ſowing roll it.

Lay

Lay up, dreſs, and roll your meadows.

Spread ant-hills. Lop and top trees. Plant quickſets; plant oſiers, willows, and other aquaticks.

The fat ſheep muſt now be kept drawing off the turnips, as they now begin to grow near an end, and the markets advance much about this time.

You may yet ſow vetches, tho' it were better done ſooner.

Finiſh ſplaſhing quickſet hedges.

Turn your ewes and early lambs into clover or ray-graſs, as the turnips are near an end.

Widen the paſſage for your bees, and continue to feed them if required. Turn up the hives gently, and ſprinkle the combs with ſweet wort.

Geld your year-old foles, take care to rub their thighs, and over their kidneys with marſh-mallows.

Set the tails of your young horſes. It is alſo a good time to break them.

The calves that drop now, ought to be kept for rearing, but as milk is at this time ſcarce, a good drink may be made by boiling hay till the water is very ſtrong, into which put for every three calves, and ſo in proportion, a pint of flax-ſeed, a pint of oatmeal, and a quart of ſkim-milk; put the flax-ſeed in along with the hay, and boil it all the time; it will be ſmooth and like a jelly, put the oatmeal and milk in when the hay is taken out, after which give it a good boil.

There is no finer feeding for calves than this; it both ſtrengthens and makes them grow large, and it is very cheap food to rear them with.

There

There are people in England who make a very comfortable living, by buying calves as ſoon as they drop, and rearing them thus: Some give them nothing but flax-ſeed and hay-water, after they are a month old.

They can buy the flax-ſeed from the oil-mills, at about three ſhillings and ſixpence a buſhel, and a buſhel will rare two calves by the above rule.

I have heard of farmers in Lincolnſhire, rearing from ſixty to a hundred calves in a year, by this method.

Put out dung for potatoes, and ſet them whether by plough or ſpade.

Sow flax-ſeed when the land is well harrowed.

Sow all ſorts of artificial graſſes, ſuch as burnet, clover, ray-graſs, white hay-ſeed, common hay-ſeed, timothy graſs, &c.

Sow

Sow beans and peas. Sow white peas.

At the latter end of the month, if the weather be good, roll wheat, bere, and rye, but ſow the graſs-ſeeds firſt, if they be intended.

Sow broom and furze-ſeeds on the tops of ditches for ſhelter, but if it be a gravelly ground, they will not grow well; therefore make the drill deeper, in which throw a little good earth to ſow the ſeeds in, this is eaſily done, and the crops are ſurer of ſucceſs.

Clip young quickſets, to make them ſpread.

Water or rate the bunch-rate flax, if the water be clear of ice.

Turn your young cattle on to the bog or coarſe mountain, which will eat better from this, till the latter end of May, than any time of the year; and

is of great uſe to ſave the fine paſtures till they get a head, by which the graſs retains the dew, and the ſon is kept from the roots.

Plant potatoes, ſow flax-ſeed amongſt them at the rate of eight quarts to an acre, to raiſe for ſeed.

Finiſh killing your bacon hogs this month, or making hang-beef or hams, as it will not do ſo well if done later.

Towards the latter end of the month, if the weather be good, ſow barley, and graſs-ſeeds after it is harrowed, and buſh-harrow, or roll them in.

Spread ſoot on your green wheat. See receipt for red worms.

Sow burnet or vetches, to ſtand for ſeed.

Spread aſhes, compoſt, pidgeons or other ſhort manures on your winter crops.

Con-

Continue to plow your fallows.

Sow hemp and flax. Try your flax-ſeed firſt if it will grow. The quick-eſt way to do this is to lap a little ſeed in a woollen ragg, and put it into a couch of malt; this will ſhew whe-ther it has loſt it's growing quality or not, in two or three days.

APRIL.

THIS is alſo a buſy month with the farmers.

Sow buck-wheat, flax, hemp, lalucerne, ſaintfoin, rye-graſs, clover, and hay-ſeeds of all ſorts.

Sow barley, which ought to be finiſhed this month, tho' ſome will ſow till the middle of May, but this is better avoided if poſſible; tho' indeed, it is better to wait a month, than ſow in ſoft, dirty wet weather, as it is a tender grain.

About the middle of this month, turn ſheep into clover, as the turnips is now done.

Finiſh rolling, ſtoning, and cleaning the meadows.

Deſtroy young rooks, and their neſts, which is eaſily done, by ſmall, long poles,

poles, one ſpliced to another, with an iron crook fixed to one end, which will eaſily pull the neſts down.

Plant quickſets and foreſt trees of all ſorts.

This is a good time to give your mares to the ſtallion, make uſe of ſuch a one as is broad and ſtrong, ſhort jointed, moves light, and goes true on his legs, what is called half-blood, or in England chapman's horſes; Ireland is ruined by following too much after blood, which is not fit for ſervice, on thoſe hard roads, or the farmer's profit.

If time permit, in the latter end of the month begin to pare your land for burn-beating.

This is a good time to begin to dig, drain, and reclaim your bog, as directed. (See reclaiming bog.)

Clip

Clip your young quickſet hedges, to make them grow thick.

Continue to keep your cattle on the bog and mountain.

Delay no longer to water or rate your bunch-rate flax, for in hot weather the worms, both in water and on the graſs will damage it, if done much later.

Sow muſtard-ſeed on ſtubble fallow, or lay-land.

Cut turf, and provide winter firing.

In the beginning of the month, finiſh ſowing oats, white peas, and fitches, grey peas, and muſtard-ſeed.

Roll your corn of all ſorts, delay no longer to lay up and dreſs your meadows, and roll them before the

ground is hard, ſet the tales of, and break your young horſes.

Keep your calves that drop now, for rearing.

MAY.

M A Y.

WE may now ſuppoſe moſt o the buſy ſeed-time to be over but if any of the lateſt crops, ſuch as buck-wheat, barley, and ſundry ſorts of graſs ſeeds, and potatoes remain unſown, finiſh them as ſoon as poſſible.

Croſs harrow your fallows of all ſorts, and plow them; after which blood your horſes, and give them a fortnight's reſt, being very neceſſary to refreſh them, after their hard ſeed-time labour.

The firſt of this month, (old ſtile) break your ſummer paſtures, bleed your horned cattle of all ſorts, and give them a lick of tar, which will prevent diſeaſes or catching diſtempers.

This is the time to buy in your incalvers for milk: make choice of thoſe with

with a fine long ſmall green horn, fine and clear of leather under the chops, and a good full ſhoulder, deep cheſted, broad and well made behind, a ſtraight broad back, full hips, with ſhort ſtraight legs, a walk open and ſtately, a thick ſkin, and broad rib'd, with a good milk-vein and udder, and large tates; ſuch dams are worth breeding, or rearing calves from, and their calves will coſt no more keeping than ſuch that are quite the reverſe.

Were a farmer to bear in mind that a calf, when a year old, of the above beautiful ſhape, will bring from forty to fifty ſhillings, when one of the ill favoured kind, (as Joſeph called them) will not give, perhaps above ten or fifteen ſhillings, certainly he would be more nice in his breed, particularly when he conſiders that they both take the ſame keeping.

Were

Were all farmers, or breeders to be ſo circumſpect, what a beautiful brute creation we ſhould have?

Give the breed-mares the horſe, and as they are generally low in fleſh, from their hard labour, they will be more apt to hold in fole.

Put your dung out, in dunghills, in fallow fields where it is to be ſpread.

Continue to deſtroy moles, rooks, magpies, &c.

Look after your bees, which if ſtrong, will now begin to ſwarm, and one ſwarm now will be worth two later in the ſeaſon.

Continue to pare your land for burn beating, and if the ſeaſon be wet, the ſods muſt be ſet upon an edge to dry.

Towards

Towards the latter end of the month plow your fallows, that were croſs-harrowed the beginning of the month.

Weed your wheat, and if too forward or rank, eat it with light cattle, ſuch as calves foles or ſheep.

Roll your wheat, and all ſorts of grain, firſt ſowing the graſs-ſeeds intended.

Lay up your clover intended for hay, or ſeed: but if a crop of hay, and a crop of ſeed be required, it muſt not be eat in ſpring; if not which, it will be ready to mow by the middle of this month, and the ſeed crop will come in good time.

Cut turf and provide your winter firing.

You may yet continue to plant fir-trees.

Continue

Continue to geld your young colts, this being the ſafeſt month in the year, as the young graſs purges them, and keeps them cool and open.

Do not forget to go on with reclaiming bog; throw it up in ridges, and burn the ſods as directed. See bog.

Weed your quickſet hedges.

JUNE.

JUNE.

THE clover muſt not be eat any longer (that is intended either for ſeed or hay) than the firſt of this month.

The forward clover's firſt crop will be now fit to mow; take it when it is very early in flower.

Continue to cut turf, and provide the winter firing.

About the twenty-fourth of this month, the buck-wheat, peas, or vetches will be ready to plow in for manure.

As near the twenty-fourth as poſſible, and when there is a proſpect of rain, ſow turnip-ſeed.

Weed hemp, flax and corn, early in the month, but it ought to be finiſhed laſt month. Look

Look after your bees, which in hot weather will ſwarm and do well if early in this month, but the latter end is too late, if it could be helped.

Weed your quickſet hedges.

This is the time to burn your land intended for turnips, rape or cole-ſeed.

Waſh and clip ſheep, pare their nails, to prevent them from being lame.

Bleed your cattle, particularly poor cattle, when turned to feed

About the twenty-ninth of this month, ſow rape and cole-ſeed.

The beginning of this month, rye-graſs will be ready to mow.

The latter end of the month, natural meadows will be ready to cut.

The rape and cole-ſeed will be ready to reap the beginning or middle of the month.

Look after your rank flax, and if it lodge, turn it as directed.

Burn lime for your fallows.

Hoe and weed potatoes, ſet with the plough or ſpades.

Plow and ſow your rape and cole-ſeed ſtubbles with turnips.

Provide pits to rate flax in, and fill them with water, in order that it may be the ſofter, which it will be the longer it ſtands, and the ſofter the water, the better. (See Remarks on flax.)

JULY.

JULY.

THE North of England and Ireland are now buſy with their hay harveſt, but the South of England has got it over.

Continue to ſow rape and cole-ſeed, which may be done with ſucceſs to the laſt of the month, and it is better to wait a week or a fortnight for a proſpect of rain than to ſow in dry weather, for if the ground be very dry, a great part of it will not come up till rain falls.

The latter end of the month, turn bulls to your ſtore heiffers.

When the weeds or graſs grows, your fallows muſt be plowed.

Towards the latter end of the month, early rye will be ripe, reap it.

Pull

Pull and rate female hemp, take care not to break the ſeed hemp, when pulling the female.

Pull and rate your white flax, beginning under the hedges, or where it lodges. This is the beſt time to buy in ſtore heiffers for the bull, which will be got nearly as cheap now, as two months ſooner; by which you will ſave the graſs to get a good head, which will bear more ſtock.

AUGUST.

AUGUST.

THIS is the harveſt month for the North of England and Ireland, but in the South of England it is moſtly over.

Rape and mow all ſorts of corn, as it becomes ripe, but ſome will not be ripe till the next month, particularly what grows on cold wet land.

When you ſtack the corn in the haggard, between every layer or courſe of ſheaves, throw fine ſand, which will get into the ears of the mice and rats, and prevent them from deſtroying it.

As ſoon as the corn is off, plow for and ſow turnips, burnet, or vetches, for winter feeding, which will do the land good, and be a great help to fodder.

Remem-

Remember to plow your fallows.

Pull and ſtack ſeed flax as directed. See flax.

Fallow your flax-ſtubble, for wheat, which will be in fine tilth by Michaelmas with two plowings, and there will be no doubt of a good crop.

Turn rams to your ewes for early lambs.

Geld your lambs. Turn to feed ſuch ewes as you intend for ſtore.

Wean your lambs and runer calves.

Hoe or weed your turnips, and ſpread aſhes on them, if you have them to ſpare.

Put your bulls to the ſtore heiffers.

The

The beginning of this month, buy in your ſtore heiffers for the bull; but take care they are not bulled before you buy them.

A ſure token to know this is, if there be wax in the teats that you can fetch out, by drawing them between the fingers.

Again, obſerve the barren, and if there be a drop hanging at it, which moſtly gathers dirt, this is a ſure ſign ſhe is bulled.

Plow your ſtubbles and ſow fitches, or burnet, as ſoon as the corn is off, for winter feeding.

You may alſo ſow turnips, though they will not be large, yet will be a great help to make fodder, as their tops will bear ſome eating. And, the farmer is to bear in mind, that all

all winter crops, whoſe ſeed is cheap, is partly clear gain; and turnip-ſeed will not coſt above ſix-pence, or a ſhilling an acre.

SEPTEMBER.

CONTINUE to get in the harveſt, which will be all ready this month.

Pull your ſeed-hemp, and towards the latter end of the month, it will be dry, ready for threſhing.

Turn the rams to your ewes, buy in half-thick ſheep, and bullocks, for winter feeding, turn them into your after-graſs, and when it is eat, turn them into the turnips.

Provide fence to pen on the turnips. either nets, ſheep-bars, or faggots.

Plow ſtubbles for winter fallows; take up or gather the ridges, that the land may lie dry.

Threſh ſeed-wheat towards the latter end of the month.

Sow vetches or burnet for winter feeding; thoſe that are ſown for feeding, muſt be ſown thicker than for a ſeed crop.

Sow wheat, rye, and bere, take care to water-furrow and gripe the land, to keep it dry.

Wean your foles, and geld them.

Look after your bees, ſtraighten the entrance into their hives, and deſtroy waſps or drones, or they will rob them of their honey. Drones are ſuch as has loſt their ſting, after which they grow large and idle, will not find for themſelves, but live on the other bees labour.

Put your hogs up to feed for pork, or bacon.

Clean or open your water courſes. In the North of England this is compell'd

pell'd to be done by a water-jury, appointed for that purpoſe, who views all the drains, levies fines, and recovers damages for any one that is aggrieved by reaſon of his neighbour's not ſcouring his drains, upon proper notice given.

Turn your hogs into the ſtubbles and woods to gather acorns.

Throw out muſty ſtraw to make dung.

Lay marl or lime-ſtone gravel on your graſs-land, and let it grow a year or two to the ſod before you plow it, by which it will do the more ſervice to the land, and will laſt longer. It is by no means proper to marl or gravel, broken or fallow land, becauſe the manure ſinks, therefore any that falls to the bottom of the furrow will ſink or deſcend too low for the plough to turn up. When it is laid on

on graſs-land, the firſt time it is plowed muſt be very thin; and in fallow, take care that the marl lie at top of the ſurface the laſt plowing.

OCTOBER.

OCTOBER.

SOW wheat, rye, and bere; water furrow and gripe as ſoon as ſown.

Plow ſtubbles for winter fallow, but this muſt be only done in wet weather, or in ſuch times as wheat ſeed ſowing cannot go on, becauſe no time in this muſt be loſt.

Plow up your potatoes that were ſet with the plough, and ſow the land with wheat or bere.

Begin to ſplaſh quickſet hedges, and ſcour the ditch to lay at the root of the quicks.

Scour or clean all water-courſes, to give the water when it comes, a ready paſſage.

Con-

Continue to ſow fitches and burnet for winter feeding.

Now is the time to take or drive your bees; but it is better to kill the bees in the hives you intend to take, than to run the hazard of loſing two ſwarms, by driving, which is often the caſe; for when two ſwarms are put to the allowance of what honey there is in one hive, that hive not having enough to ſupport them all, they eat what there is, and then periſh for want.

The way to drive them is to put the mouths of two hives together, and they will go into the upper one.

The way to kill them is to make a round hole in the ground, which will fit the mouth of the hive, in this, ſtick three bits of ſticks, about ſix or eight inches, ſlit the upper end, in which fix three linen raggs, dipped in brimſtone, ſet them on fire, and over them

them put the mouth of the hive downwards, and ſtop it cloſe round with ſods, ſo that it will neither let ſmoak or bees out; this will effectually kill all the bees.

Prune and plant all ſorts of foreſt-trees and quicks.

The flax and hemp has by this got a ſweat in the mow, begin to break and ſwingle it out.

This is the time, before too much water comes, to make ſmall ſurface and pipe drains, that they may be open, ready to take off the water when it comes.

The ſurface drains or gripes, are cut a-croſs meadow graſs, or corn land; from every low place, to the ditches, or head drains. They are made only wide enough for a ſpade to run at

at the bottom, to ſhovel the mould out, and a ſufficient depth to take the water off from the loweſt places and furrows.

Pipe drains are particularly uſeful to drain in lawns or meadows, lying oppoſite gentlemens houſes, who for beauty's, ſake would not have drains ſeen; and theſe anſwers the end of French drains. Pipe drains are made thus, viz.

Take a ſharp ſpade, run it ſloping down ten or twelve inches, then turn your face and ſpade another way, and cut another nick, ſloping down oppoſite to the former; let the ſod at the top be about eight inches broad, and the ſpade going thus ſloping down both ways, will meet at the bottom, therefore the ſod will have a ridge or ſharp angle, of which cut about three inches off, then drop the ſod into it's own place, by which there will be a tube

or paſſage for water, about three inches triangular, which is ſufficient to take any downfal of water off.

The ſod dropping into the ſame place, forms (as it were) an arch; and if the ground be tolerable firm when it is made, a horſe may tread on the ſod and it will not ſink. It is beſt to defer turning cattle into the land where ſuch drains are made for three weeks or a month after, in order that the ſod may grow together and be more ſolid.

You may cut theſe drains as near together as you pleaſe, or need requires, they are quickly and eaſy made, and there is no loſs of ground, or any offence to the eye. It might be done on a bowling-green, or graſs-plot, ſpread the little triangular ſod or mould you cut off, which will help to freſhen the ſurface.

Streighten the paſſage for your bees, and take care that no mice or ſnails come at them, they being great enemies.

Kill waſps and droans.

This is the time to brew your ſtrong bear for keeping.

And here let me adviſe the Iriſh farmers to copy after the Engliſh by brewing good bear or ale, and make that their drink inſtead of giving their money to the French for wine and ſpirits.

No man is to be pitied that cannot enjoy himſelf or his friend over a glaſs of good ale, the produce of his own land.

On the other hand, he is very weak and greatly to be blamed, who is led away

away by pride, to ape the gentlemen of fortune, in treating with ſuch coſtly liquors, when the produce of his own country, ſuits both his conſtitution and pocket better.

NOVEM-

NOVEMBER.

NOW is the time to finiſh plowing all your winter and enſuing ſummer fallows, whether ſtubble or lay-land, and then lay by your ploughs, and harrows dry 'till January.

Put up your hogs to feed for bacon.

Moſs-harrow your lands, either ſummer paſture or meadow.

Take up your cattle, and horſes of all ſorts; put cows into the houſe, and bullocks and other dry cattle into the barn-yards to eat ſtraw.

For the conveniency of which, make racks to ſtand on four feet, like ſheep-racks ſeven feet long; this will hold a large arm-full of ſtraw. To every two beaſts have one of theſe racks, and diſperſe them about the yard, ſo

as

as cattle may walk and eat round them.

Turn your ſheep into the turnips, and confine them to what they will eat in a week.

Buy in ſmall ſtore pigs to turn into the barn-yard, to eat the looſe corn that falls under the ſtand-racks, which will pay well by May.

Contiuue to ſow wheat, rye, and bere.

Overflow your meadows.

Bleed your horſes and fat cattle of all ſorts.

Deſtroy ant-hills.

Move your bees under ſhelter, if they be not already in a bee-houſe.

Plant

Plant quickſets, ſcour your drains, ſplaſh quickſets, fell coppices, provide timber for carts and ploughs.

Fat your ſwine for ſlaughter.

Plant fruit and timber-trees, if the weather be open.

DECEMBER.

DECEMBER.

THIS is one of the farmers months of reſt partly, not having much to do.

When the ground is clear of froſt, moſs-harrow and roll meadows or graſs-ground of all ſorts that wants it.

Look after your fat ſheep, and give them a little hay to clean their mouths from dirt, occaſioned by their ſcouping the turnips out of the ground.

Pick up the turnip ſhells with a fork, that the ſheep may eat them clean before a freſh break is made.

Kill your bacon hogs, and winter's beef.

Take care of your young foles, and inſtead of threſhed oats, give them fine oat ſheaves, which is better for them.

Turn

Turn cattle into your burnet o vetches that was ſown for winter feed ing if it be forward, but it is better t ſpare it 'till ſpring, when herbage is o more value.

Spread ſoot, or the compound o ſalt to kill the red worms, and enrich the land. (See receipt.)

Look after your bees, and feed them if they want it; feed your pidgeons ſpread aſhes among their dung. Fel copſes, and provide timber for houſe- boot, cart-boot, and plow-boot.

CHAP

ital, or total Expence to ſtock a Farm of 150l. a Year, with the Expence of the firſt Coſt of 400 Sheep to feed with Turnips, and not to ſell the Colts and Bullocks until three Years old. This adds to the Capital in this Table 273l. more than in the other capital Table.

4l. each	6 one Year old Calves at 2l. each	6 two Year old Bullocks at 3l. each	6 three Year old Bullocks at 3l. 10s.	8 Mares at 10l. each	4 one year old Foles at 3l. each	4 two year old Colts at 6l. each	4 three year old Cots at 8l. each	2 Sows with 8 Pigs each at 3l. each	10 Hogs at half a year old at 10s.	8 Cars at 2l. each	4 Plows at 2l. each	4 Pair of Harrows at 1l. each	8 Pair of Geers at 15s.	400 Sheep fed on Turnips at 12s. per	20 Sheep for family uſe at 10s. each	Total Expence or firſt Capital	Number of Cattle that live on Graſs	Total Number of Sum or Foot that live on Graſs	
24	l. 12	l. 18	l. 21	l. 80	l. 12	l. 24	l. 32	l. 6	l. 5	l. 16	l. 8	l. 4	l. 6	l. 220	l. 10	l. 498	464	38	R
6	6	6	6	8	4	4	4	0	0	0	0	0	0	400	20	0			H
6	2	4	6	8	1¼	2½	4	0	0	0	0	0	0	0	4	0	0	38	M

EXPLANATION.

arallel Lines between O and R, and in each Column, you ſee the total Expence of each different Stock, &c. which is toted up and placed near R. In parallel Line between A and P, and in each Column you ſee the Number of each different Stock, which all being added up makes 464l. which is placed The parallel Line between Q. and M, and in each Column you ſee how many Foot of each Sort of Cattle: and near M is placed 38.

al Stock and Capital required for a Farm of 150l. a Year. Note I have lowered the Capital 273l. in this Table, which is the Coſt of 400 Sheep, 4 three old Horſes, and ſix 3 Year old Bullocks, as he may do without them the firſt Year; as to the 400 Sheep for Turnips, the Farmer may make Money on his before he wants to buy them.

4l. each	6 one year old Calves at 2l. each	6 two-year old Bullocks at 3l. each	8 Mares at 10l. each	4 one year old foles at 3l. each	4 two year old Colts at 6l. each	2 Sows with 8 Pigs at 3l. each Sow	10 half year old Hogs at 10s. each	8 Cars at 2l. each	4 Plows at 2l. each	4 Pair of Harrows at 1l. each	8 Sets of Geers at 15s. each	20 Sheep at 10s. each	Total of the capital Expence	Number of Cattle that lives upon Graſs	Number of Ball or Foot of Cattle allowing one 1 year old, and one 2 year old to make a full Beaſt.	
24	l. 12	l. 18	l. 80	l. 12	l. 24	l. 6	l. 5	l. 16	l. 8	l. 4	l. 6	l. 10	l. 225			W
6	6	6	8	4	4	0	0	0	0	0	0	20		54		Z
6	2	4	8	1¼	2½	0	0	0	0	0	0	4			28	T

EXPLANATION.

parallel Line between Y and W, and in each Column, you ſee the Expence of every different Stock and Utenſil, the total Expence being 225l. added up, ed at the End of ſaid Line next W. The parallel Line between X and Z, and in each Column, you ſee the Number of each different Stock, and are and placed in the Line next Z, and appears to be 54. The parallel Line between S and T, and in each Column, you ſee how many Foot or Ball of each Cattle, which is added up, and placed in the Line next T, which is 28 Foot; one 2 year old, and one 1 year old, makes in Point of Grazing, one Foot, they are ſuppoſed to eat as much Graſs as an aged Horſe or Cow; five Sheep alſo bears the ſame Proportion.

Different Quantities of Seed ſown on an Acre, as expreſſed in each Column, for Drill and Broadcaſt-Huſbandry.

Different Sorts of Seed.		Turnips	Clover	Lucerne	Burnet	Potatoes	Buckwheat	Ray Graſs	Sainfoin	Fitches	Cole-ſeed } Rape and }	Peas	Beans	Rye	Oats	Barley	Wheat	Hemp	Flax	Different Sorts of Seed.	
lb.	The Author's Quantity	1	12	2	12	32	12	24	24	12	1½	8	12	8	10	8	12	8	12	Peck	The Author's Quantity
lb.	Iriſh Farmer's Quantity	2	12	2	15	128	16	28	24	18	2	18	20	16	16	18	16	18	16	Peck	The Iriſh Farmer's Quantity
lb.	Engliſh Farmer's Quantity	1½	12	1½	12	32	20	24	24	15	1½	8	12	12	14	12	12	12	12	Peck	Engliſh Farmer's Quantity.
lb.	Drill Huſbandry	3 3oz.	1½		0	32	0	0	1	0	½	2	4	0	3	2	0	0	0	Peck	Drill Huſbandry

It is my Opinion, that tho' I ſow thiner than moſt Engliſh Farmers, yet I am clear, I throw one Half of my Seed away; particularly Wheat, Barley, Oats, Beans, Peas and Rape. Indeed, I have not ventured to ſow any large Quantity of Land with leſs than I have ſet down; however, I purpoſe this next Year to ſow no more than 3 Pecks of Wheat, 5 Pecks of Barley, 7 Pecks of Oats, and one Peck of Rape. Note, oppoſite each Crop that is not proper to be ſown in Drill-Huſbandry, I have left a Blank.

Capital and Stock neceſſary for a 35 Acres Farm.

2 Cows at 4l. each	2 one year old Calves at 2l. each	2 two year old Bullocks at 3l. 10s each	2 Mares at 6l. each	1 one year old Colt at 2l. 10s.	1 two year old Colt at 5l.	5 Ewes at 8s. each	2 Hogs at 10s. each	2 Cars at 2l. each	1 Plow at 1l. 15s.	1 Pair of Harrows at 1l.	2 Pair of Geers at 15s.	Total Capital
l. 8	l. 4	l. 7	l. 12	2l. 10s.	l. 5	l. 2	l. 1	l. 4	1l. 15s.	l. 1	1l. 10s.	39l. 15s.
2	2	2	2	1	1	5	0	0	0	0	15	N° Cattle
2	½	1¼	2	¾	1¼	1	0	0	0	0	7	No Foot

This TABLE is explained the ſame Way as the other two capital Tables.

A TABLE ſhewing a regular Succeſſion of Crops in Rotation, and the Expence and Profit attending 150 Acres Farm; ſo that a Farmer may at one View, ſee both what his Farm ought to be ſtocked with, what he ought to make Money of, and what Expence he is at, and Profit he gains from one Year to Six, beginning, we ſuppoſe, in the Year 1766, and ending in 1771.

In what Year each Field was Croped with	These ſix Columns are ſix Fields, twenty Acres in each, ſhews ſix Sorts of Crops to follow each other in Rotation, four of which is charged to this Account, but the two Clover Crops goes to maintain the Cattle, and is charged to them.						Natural Graſs to accommodate this Farm	Meadow to accommodate the Farm	Four 3 Year old Horſes ſold every Year at 10l. each	Six 3 Years old Bullocks ſold every Year at 4l. each	Ten fat Hogs ſold each Year at 1l. each	200 Bar. of Wheat ſold each Year at 20s. per Barrel	480 Barrels Barley ſold each Year at 9s. per Barrel	400 Bar. Oats ſold each Year at 9s. per	400 Sheep fed and ſold each Year at 12s. Profit each	Each Year's Produce	One Head-man at 10l. two at 6l. and 2 Boys at 3l. each	One Head-maid at 4l. one at 3l. and a Girl at 2l. each	2 Laborers at 8d. per Day each	150 Acres at 20s per Acre	Yearly Repairs of Emplements, &c.	6 Cows to feed for family at 3l. each	20 Sheep for family uſe at 10s. each	To Seed and Bread Corn each Year	Yearly Expence	Clear Profit Yearly
	A 20 Acres	B 20 Acres	C 20 Acres	D 20 Acres	E 20 Acres	F 20 Acres	G 20 Acres	H 10 Acres	Horſes	Bullocks	Hogs	Wheat	Barley	Oats	Sheep	£.	Men Servants	Women Servants	Laborers	Acres	Repairs	Dry Cows	Sheep	Seed Corn &c.	L. S.	L. S.
1766	Wheat	Oats	Turnips	Barley	Clover Graſs	Clover Hay	Graſs	Meadow	l. 40	l. 24	l. 10	200	480	400	400	910	l. 28	l. 9	20l. 16s.	l. 150	l. 20	l. 18	l. 10	l. 58 10	314 6	595 14
1767	Oats	Turnips	Barley	Clover Graſs	Clover Hay	Wheat	Graſs	Meadow	40	24	10	200	480	400	400	910	28	9	20 16	150	20	18	10	58 10	314 6	595 14
1768	Turnips	Barley	Clover Graſs	Clover Hay	Wheat	Oats	Graſs	Meadow	40	24	10	200	480	400	400	910	28	9	20 16	150	20	18	10	58 10	314 6	595 14
1769	Barley	Clover Graſs	Clover Hay	Wheat	Oats	Turnips	Graſs	Meadow	40	24	10	200	480	400	400	910	28	9	20 16	150	20	18	10	58 10	314 6	595 14
1770	Clover Graſs	Clover Hay	Wheat	Oats	Turnips	Barley	Graſs	Meadow	40	24	10	200	480	400	400	910	28	9	20 16	150	20	18	10	58 10	314 6	595 14
1771	Clover Hay	Wheat	Oats	Turnips	Barley	Clover Graſs	Graſs	Meadow	40	24	10	200	480	400	400	910	28	9	20 16	150	20	18	10	58 10	314 6	595 14
The Year of our Lord 17	l. 836 Total Produce of this Field in ſix Years	l. 836 Total Produce of this Field in ſix Years	l. 836 Total Produce of this Field in ſix Years	l. 836 Total Produce of this Field in ſix Years	l. 836 Total Produce of this Field in ſix Years	l. 836 Total Produce of this Field in ſix Years	This Field is charged to the Account of the Cattle ſold	This Field charged to the Account of Cattle ſold, &c.	l. 240 Total Produce of Horſes ſold in ſix Years	l. 144 Total Produce of Cattle ſold in ſix Years	l. 60 Total Produce of Hogs ſold in ſix Years	l. 1200 Total Caſh by Wheat in ſix Years	l. 1296 Total Caſh by Barley in ſix Years	l. 1080 Total Caſh by Oats in ſix Years	l. 1480 Caſh by Sheep fed with Turnips in 6 Years	l. 5460 Total Caſh in ſix Years of a 150 acre farm	l. 178 Total Expence in ſix Years for Men Servants	l. 54 Total Expence in ſix Years for Maid Servants	124l 16s Total Expence in ſix Years for Labourers	l. 900 Total Rent for ſix Years	l. 120 Total Expence in 6 years Rep.	l. 108 Total for fat Cows in 6 Y.	l. 60 For Sheep in ſix Years	l. 351 Seed and bread Corn for ſix Years	1885 Total Expence for ſix Years	3584 4 Clear Profit in ſix Years.

EXPLANATION of the above TABLE.

The Columns wherein ſtands A B C D E F G H is ſuppoſed to be eight Fields, ſix of which is always kept in a regular Succeſſion of Clover and Tillage; the other two G and H is natural Meadow and Paſture, as it is an equal Chance, but out of every 150 Acres, near 20 may be rocky or woody, and not improveable or proper for Tillage, but may do well for Paſture. The parallel Line and in each Column as explained, you ſee the yearly Expence and Produce of each different Article, and upon ſubtracting the Expence from the Produce, we find clear Profit each Year 595l. 14s. as appears in the Caſh Columns, which makes in ſix Years (the Time the Crops are going round) 3584l 4s. clear Profit; neither can a Farmer ſay but I have allowed him as good Living as any Grazier in Ireland could deſire, were he to pay five thouſand a Year Rent. In the Wheat Field he might introduce a few Acres of Flax; alſo in the Oat Field ſome Peas or Beans, which might not at all leſſen his Profit, but augment it, particularly if the Land was ſuitable for theſe Crops. I hope this appears ſo plain, that it will introduce this profitable and uſeful Branch, on which the comfortable Neceſſaries of Life for both Man and Beaſt depends; and what I have ſet forth is no way out of the common Courſe of Things; for were I to aſk a Farmer, Was it poſſible for an Acre of Land to produce ten Barrels of Wheat, twenty or twenty-five Barrels of Oats or Barley? He would immediately anſwer Yes, a great deal more. Then what has been, may be again, for the ſame Cauſe will produce the ſame Effect; and when a Farmer has no more Land than he can manage effectually, he may always depend upon the Succeſs he propoſes. Note, As I expect this Farm to be managed in the Engliſh Method of mowing the Corn, and ploughing with one Man and two Horſes, &c. &c. the above Allowance of Labourers and Servants is full ſufficient; alſo conſidering what Keeping I allow, and the Price the Cattle coſts when bought in, there is no Doubt but they will give what I have charged them in ſelling out.

CHAP. XXVII.

General Remarks on Stock-farms, and the different State of the Engliſh and Iriſh Farmer, Poor, &c. &c.

MY long acquaintance with, and frequent travels through Ireland, have given me a knowledge of the lands, inhabitants, and conſtitution of the kingdom in general.

I muſt own my ſurprize was great, at my firſt journey into the country, to ſee about three-fourths of the inhabitants living in little huts or cabbins, built of ſods, and covered with ruſhes, flax-ſhoves, or the like, not ſufficient to keep out a ſhower of rain, and that a man can ſcarcely ſtand ſtraight in; yet they are perhaps inhabited by eight or ten men, women and children, half naked, and whoſe chief ſupport of life, is potatoes and butter-milk; their

bedding, nothing but ſtraw or ruſhes, and this ſometimes in a ſparing manner.

No wonder then that a ſcene like this ſhould ſhock an Engliſhman, who had not before ſeen even the brute creation live and lie worſe. The high roads alſo ſtocked with beggars, whoſe cant prayers and cries are enough to ſhock the frame, and grate the ears of thoſe who has in them any fellow feeling.

Indeed I have read of ſuch unhappy wretchedneſs ſubſiſting amongſt the ſavages or hotentots, but did not expect to find it ſo near home.

Such an unexpected ſcene amongſt my brother chriſtians, naturally led me to make compariſons between the poor of the two kingdoms: theſe of Ireland in the unhappy ſtate as above; and thoſe of England who live in the midſt of plenty and decorum.

Go

Go into one of thoſe poor mens houſes, it is more than an equal chance, but we ſhall find a clock, pewter, chairs, tables, feather beds, ſheets, blankets, quilts, hangings, &c. &c. all in regular clean decent order; there we ſhall ſee alſo hang-beef and bacon, cheeſe, bread and butter in their pantries, all this is the fruits of good living.

But however, they do not eat the bread of idleneſs, they keep up to the ſcripture phraſe, where it ſays, he that will not work, let him not eat.

You may viſit one of theſe houſes a great many times, and not find the men part of the family idle, or at home, they are (ſundays excepted) always at work; the women and children alſo are not without their employ of ſome ſort.

Thus

Thus the children are brought up in the midſt of morality, induſtry, and plenty. It is almoſt a miracle to hear God's name taken in vain, cant prayers, imprecations, or oaths made uſe of.

A ſwearer, lyar or pilferer cannot live amongſt them. Such is ſhunned (as they ought to be) like a mad dog, and it is well known, that idleneſs is the inventer and a prelude to all ſuch ſin and wickedneſs; for while the body and the mind are barren from good works and thoughts, invention of ſin and wickedneſs fil it's place.

The farmers of England, their children, ſervants and labourers, are the moſt innocent, honeſt, and godly people in the known world; their word is as good as a bond; they ſeldom promiſe, but when they do, they faithfully fulfil it.

With

With them, a man that breaks his word, or tells a lie, loſes his character, and the good opinion of his neighbours; and when that is gone, he has no more buſineſs or ſatisfaction in that neighbourhood; and what is more, he cannot quit it, if a poor man, as no pariſh will take him in, or let him a houſe, without being firſt indemnified by the pariſh he belongs, that he ſhall not be burdenſome or troubleſome to them. All theſe good preſidental morals, conſtitutional laws and leſſons, makes them a valuable uſeful body or ſet of men; and on which the riches of any kingdom depends.

But if we again turn our eyes on the poor of Ireland, how many thouſand families may we find, that inſtead of being uſeful, is a peſt to ſociety; their children is trained up to lying, ſwearing, pilfering and idleneſs; they may truly be ſaid to have a dogs life, hunger and eaſe.

How-

However, in all this they are rather to be pitied than condemned, as the ſcarcity of work may be conſidered as a real misfortune, both to them and the kingdom in general. The poor, however, feels it moſt ſenſibly.

The above deſcription of the Iriſh poor, is too truly their unhappy caſe; and tho' the gentlemen of Ireland, (whoſe benevolence and charitable diſpoſition is unqueſtionable) who labour indefatigably to cure theſe grievances, by giving premiums, building large poor-houſes, &c. &c.

Yet with humble ſubmiſſiion, I apprehend the malady is every day growing worſe, and is to be feared, will, till ſome method is taken to put a ſtop to theſe over-grown ſtock-farms. Theſe are the chief and real bar to the riches, proſperity, improvement, induſtry, good morals, regularity, cloathing and feeding of the poor of Ireland.

I have

I have travelled through the kingdom many times within this twenty years, and particularly within the laſt year, have been very minute in my obſervations; and it appears to me as clear as the noon-day, that theſe large over-grown graſſing, or ſtock farms ever was, is, and will be, the ruin of Ireland, as they are a ſtagnation to trade and improvement; for what improvement does three or four thouſand bullocks (which occupy more acres of land) create or require? In ſhort, they in a manner, lay waſte a country, as four or five families is ſufficient to take care of this tract of land, and number of cattle.

It is a known truth, that the riches of every country depends upon the labouring part of its inhabitants. On thoſe every branch depends that is neceſſary for the uſe of man, whether for back or belly. But in ſuch waſte countries, the poor are deprived of all manner of means to be uſeful, either

ther to themſelves or the public; they muſt either ſtarve or turn out to beg or ſteal, or perhaps both. This is too truly the ſtate of the caſe, which every well-wiſher to Ireland may be ſorry for, as it muſt effect every individual thereof in one reſpect or other, and the very graziers themſelves is not making the beſt uſe of either their land or time; they only live from hand to mouth; it is true, they live well, and drink punch and claret, but few of them (tho' they hold from five hundred to five thouſand acres) can portion five or ſix children with a thouſand pounds a piece. Then is not this a ſhame, that a man ſhall take up ſuch a tract of a country, to ſo little utility, for his family or the public good.

In ſhort, he has nothing to plead in his behalf, but that he gets his living in an indolent eaſy manner; for, ſays he, corn is troubleſome; and if you tell him how well the Engliſh farm-

ers

farmer live by it, he again anſwers, that they have free exportation, better markets, &c. a cock and a bull ſtory he knows nothing about. Likewiſe, ſays he, land in Ireland is too dear to pay rent by corn; more deluſions and phantoms to fright and keep him from purſuing his own intereſt; but I aſſure him theſe arguments are falſly grounded. Can any man ſay, and prove that he can make ten pounds an acre by grazing; and will not land worth twenty ſhillings an acre, by proper tillage, bring ten barrels of wheat, worth ten pounds.

But if we make a compariſon between the loweſt crop in value (which is oats) we ſhall find that it will have the advantage of grazing above two to one. As for inſtance, how common is it for a grazier in Ireland to let his land in con-acres for three or four years together; the firſt for graſs-potatoes at five pounds an acre, and for two or three crops following, at three

pounds an acre for oats, and this to a poor man which has both plowing, ſeed, and labour to find, and his family to maintain out of that acre; then certainly ſuch an acre muſt make ſix or ſeven pounds at leaſt, to pay all expences, and maintain his family; if ſo, it muſt make more to the farmer who has teams or carriages, &c. without hiring; but here again he is pleading indolence; for, ſays he, it is eaſier to count 3l. in caſh, than to manage an acre of oats. Now ſuppoſe he ſits down with the worſt hand he can make of his land, namely, the three pounds an acre, yet it is double what he could make by grazing, for the grazier thinks himſelf well off if he can make thirty ſhillings an acre throughout his farm. There is no ſophiſtry in this, it is all plain and clear to a weak underſtanding, that corn is the greateſt profit.

Further, the Iriſh farmer is miſtaken, when he ſays or argues that the bounty for

for exportation, give the balance in favour of the Engliſh farmer. How can this be? is not every commodity worth what it will bring? does not the corn factor find out the higheſt market, to ſend his cargo to? and does he not alſo find out the loweſt market to lay in his cargo? and if he buy it in England, muſt not that be the loweſt market? if he brings it to Ireland, is not that the higheſt market?

If this reaſoning will not ſtand good, a merchant could not trade; for the bounty money will not pay the expence and freight, let alone profit and hazard.

But ſuppoſe there was a great advantage in it, the farmer gets it not, he ſells it at the loweſt market, as there are ſeveral traders to get a living by it after it parts him, ſuch as the merchant, mariner, broker, &c. therefore it is plain his corn is going to a higher market, and if that be Ireland, certainly the Iriſh

Iriſh farmers has the profit of all theſe branches, becauſe he is at home in the higheſt market, where all thoſe have a living to get by trading thereto.

Indeed if Ireland was to raiſe more corn than ſhe could conſume, ſo as to reduce her market lower than any other, then ſhe might cry out for a foreign twrade ith authority.

But however, this is not the caſe, for I have known Ireland for near twenty years, and always found her markets higher by ten or fifteen per cent, than in the corn countries of England. I do not mean Liverpool, for there corn generally bears the ſame price as in Dublin, as it is as eaſy to import corn from the interior parts of England to Dublin, as to Liverpool. For Lincaſhire, and Cheſhire, are no corn countries, their produce being chiefly cheeſe.

Now

Now we ſee by the above, that the Iriſh farmer has a great advantage over the Engliſh both in point of market and rent.

For by the niceſt calculation I can make, I find the lands of Ireland are cheaper or lower than in England; for ſuppoſe the beſt and ſmootheſt land in Ireland be upon a par, at twenty ſhillings an acre; by the ſame rule, the beſt lands in England will only be at about twelve ſhillings an acre; beſides the taxes in England are higher, and labour nearly double the price: this is all on the Iriſh farmer's ſide.

Now perhaps my Iriſh readers may think I talk like a traveller, when I tell them that an Engliſh farmer who never farmed more than one hundred a year, ſhall expend twice as much meat in his houſe, and ſave more money (in a general way of ſpeaking) than an Iriſh grazier that pays from 1000 to 1500l. a year

year rent. Nay, in ſhort I know ſeveral fifty pounds a year farmers that is worth more ready money than ſome Iriſh graziers of two or three thouſand a year rent. This I believe will be aſſented to by any gentleman that knows the two kingdoms.

Then certainly the Iriſh grazier will never pretend to ſay that grazing is able to pay the higheſt rent or make the moſt money in any degree.

But however, that he may be the more clearly convinced, let him caſt his eye over the different tables in this work to ſee his folly. He will likewiſe ſee, that the corn farmer will not depleniſh himſelf or the country from cattle, becauſe he can breed and feed as many as will keep up a proper ſtock.

But however, to encourage the grazier further, to turn his land to corn, I ſhall

I ſhall ſhew him where he may have both profit and leſs trouble than by grazing, which are two prevailing arguments, and deſerves chapters and tables to themſelves.

CHAP.

CHAP. XXVIII.

The methods or rules to be taken by gentlemen and graziers in dividing, ſtocking and tenanting a 35 *acres farm.*

WHEN a gentleman or grazier has looked over this ſubject, and find by the rationality thereof, that it is practicable, and worthy his attention, as doubtleſs he will, if he be not ſtupidly prejudiced or blind to reaſon.

Let him put it in practice by the following rules, arguments, and poſitive orders to his tenants; without this he cannot have his plan well executed; for if he be wavering, or have a ſoft ſpot in him, the art of the low people will ſoon find him out, and by their inſinuating arguments bring him over to their wiſh.

First,

This TABLE shews the Rotation of Crops, and the Expence and Profit of Thirty-five Acres Farm, from one to six Years.

The Year of our Lord	Rotation of Crops which comes round in six Years.						Natural Grass to accommodate this Farm	One Colt 2 Years old sold each Year	2 Bullocks, 2 Years old sold each Year at 50s. each	One fat Hog sold each Year	40 Barrels Wheat sold each Year at 1 l. per Barrel	100 Barrels Barley sold each Year at 9s. per Barrel	100 Barrels of Oats sold each Year at 8s. per Barrel	Lambs and Wool each Year	Yearly Produce	Rent for 35 Acres at 35s. per Acre	One Cow to feed each Year at 3l.	Repairs of Ploughs, Cars, &c. at 5l. each Year	Corn for the Family use, and Seed each Year at 15l.	Two Hogs to feed yearly	Yearly Expence	Clear Profit Yearly	
	A 5 Acres	B 5 Acres	C 5 Acres	D 5 Acres	E 5 Acres	F 5 Acres	G 5 Acres	Colts	Bullocks	Hog	Wheat	Barley	Oats	Lambs	l.	Rent l. s.	Cow	Repairs	Corn	Hogs	l. s.	l. s.	
1766	Fallow	Wheat	Barley	Oats	Clov. Hay	Clov. Pasture	Pasture	l. 8	l. 5	l. 1	40	45	40	l. 2	141	61 5	l. 3	l. 5	l. 15	l. 1	85 5	55 15	
1767	Wheat	Barley	Oats	Clover Hay	Clov. Pasture	Fallow	Pasture	8	5	1	40	45	40	2	141	61 5	3	5	15	1	85 5	55 15	
1768	Barley	Oats	Clover Hay	Clov. Pasture	Fallow	Wheat	Pasture	8	5	1	40	45	40	2	141	61 5	3	5	15	1	85 5	55 15	
1769	Oats	Clover Hay	Clov. Pasture	Fallow	Wheat	Barley	Pasture	8	5	1	40	45	40	2	141	61 5	3	5	15	1	85 5	55 15	
1770	Clover Hay	Clov. Pasture	Fallow	Wheat	Barley	Oats	Pasture	8	5	1	40	45	40	2	141	61 5	3	5	15	1	85 5	55 15	
1771	Clov. Pasture	Fallow	Wheat	Barley	Oats	Clov. Hay	Pasture	8	5	1	40	45	40	2	141	61 5	3	5	15	1	85 5	55 15	
	l. 125 Total Produce of this Field in six Years	l. 125 Total Produce of this Field in six Years	l. 125 Total Produce of this Field in six Years	l. 125 Total Produce of this Field in six Years	l. 125 Total Produce of this Field in six Years	l. 125 Total Produce of this Field in six Years	This Field is charged to the Account of Cattle fold	l. 48 Total Amount of Horses in six Years	l. 30 Total Cash by Bullocks in six Years	l. 6 Total Cash by Hogs in six Years	l. 240 Total Cash by Wheat in six Years	l. 270 Total Cash by Barley in six Years	l. 240 Total Cash by Oats in six Years	l. 12 Total Cash by Lambs, &c. in six Years	846 Total Cash in six Years	367 10 Six Years Rent	l. 18 Expence by Cows for six Years	l. 30 Total Expence in six Years	l. 90 Expence of Corn for Seed and Family	l. 6 Six Years Expence of Hogs	511 10 6 Years Expence added up	334 10 6 Years clear Profit	Q.

EXPLANATION.

A B C D E F G is each a Field or Division, being in all Seven, and each contains five Acres, which compleats the 35 Acres Farm. You see in each of those Fields or Columns, the different Crops as they are to follow each other, and no one Crop is to be sown two Years together in the same Field. You see also which Crop is most proper to follow each other; as for Instance, the Field A in 1766, is Fallow, in 1767 Wheat, in 1768 Barley, in 1769 Oats, in 1770 Clover Hay, in 1771 Clover Pasture, and in 1772 it comes round to be fallowed again; and thus all the Fields takes their Turn, no one being sown twice with the same Grain in six Years. At each End of each Column the Reading explains it. The parallel Line from the Fields of Rotation to Q. is a Cash Line all the Way; at the End of which next to Q. is placed 334l. 10s. which is the Farmer's Profit for six Years; consequently he gets the sixth Part of the Profit every Year, which appears in the six Lines above.

First, let him proceed to divide the land into 35 acre farms, and each farm into ſeven diviſions or fields, ſix of which muſt be always kept under a tillage and clover; the ſeventh perhaps, may be rocky and unimproveable, muſt be kept under grazing, three of the ſaid fields will every year produce corn, namely, 5 acres of oats, 5 acres of barley, and four acres of wheat; for in the wheat field muſt always be half an acre of potatoes, and half an acre of flax, half of the flax kept for ſeed, and the other half for white flax; five acres under fallow, five acres under clover-hay, and five acres under clover-graſs for paſture, which, along with the five acres of natural-graſs paſture, and the after-graſs, hay, and ſtraw, would rare and feed the ſtock propoſed.

Namely, two mares, one fole, (for one of the mares ſhould every year have the horſe,) one two years old colt, two cows, two 1 year old calves, two

two year old bullocks, one dry cow to feed for the family's own uſe, five ewes and lambs, in all nine compleat ſums or foot, See the Table.

Thus the land being divided and ſtocked, proceed to chuſe two labourers or cotters for tenants for each farm, who perhaps may have ſtock ſufficient, if not buy them ſtock, and take payment for them out of their crops of corn; the rule for rent charge muſt be what he made out of his land by grazing; in a general way, ſuppoſe he himſelf pay 20s. an acre, he might make 35s. per acre; therefore charge it ſo much, and vary his charge in proportion to the goodneſs of the land or rent himſelf paid. The table ſhews the profit that each farm would leave, and as it may be relied upon to anſwer that, if not more, the land-lord need not doubt of ſucceſs, neither need he tell the tenant what rent he will charge, as it might ſeem high and fright him, till he ſees the produce of two crops, which would con-

convince him, and in truth, the grazier would have a right to charge as much as he could make by grazing, at which the tenant would not grumble to pay, particularly after he ſee his own profit, and conſider that his land-lord helped to ſtock the farm, run the hazard, &c. &c.

If the land-lord chuſed to tell what rent he would charge, he might reaſon with his tenants thus;

I fix the rent, ſays he, ſo much becauſe I could make that money by grazing, and I alſo will ſtock what you are deficient, and all that you make above the rent, ſhall be your own, therefore you run no hazard of trial, &c. and I will ſee you no loſers; but it is plain to me, that you will have over and above the rent and all expence. Nevertheleſs you muſt keep ſtrictly up to my orders, and I or my ſteward, will viſit you every month to ſee that you do.

My

My orders is this, viz. One of you muſt keep ditching (in order to encloſe each field) till harveſt, for till then there will be no other work; the other muſt plow conſtantly with theſe two horſes, and drive yourſelf, till you have plowed number 1 three times over, which muſt be ſown with barley. Number 2 you muſt plow twice over, and ſow it with oats and clover. Number 3 muſt be fallowed or plowed every month, for a year; four acres of which ſow with wheat, and half of the other acre with flax; the other ſet with potatoes; all theſe plowings makes no more than 170 day's work, at half an acre each day, which leaves 142 working days for harrowing, ſowing, and chance of froſt, &c. What time you have to ſpare you muſt threſh, ditch, harveſt, &c. Number 4 muſt be kept for meadow this year, but the next you will have clover meadow, therefore it muſt be fallowed twelve times, and ſown with wheat. Number 5, muſt be kept for grazing, till the courſe of tillage

lage comes about to take it into tillage, and lay clover in its place; as ſoon as the corn is reaped you muſt plow the ſtubble under, and you will have directions how they muſt be ſown next year.

You muſt feed one pig for to ſell, and another to kill for your own eating; you muſt feed one cow upon the after-graſs, for your own eating; you muſt keep half of the flax for ſeed, and the other water with the ſeed on.

All theſe rules and orders you muſt ſtrictly obſerve, and other orders I ſhall give as the works come in ſeaſon.

In all this the monthly calendar will ſtrengthen the memory of the landlord.

My reader is deſired to take notice, that I have lowered the produce of theſe crops conſiderably to what they might be

be expected to yield, (or what I have laid down in ſome of my tables) but I did it on purpoſe to ſhew him that it is impoſſible even in bad crops, but that both he and the tenant ſhould be a great gainer in the purſuit of this ſcheme: And if turnips was ſown in the fallow year, as directed in the table for 150 acre farm, the profit would ſtill be more conſiderable; but I omitted taking notice of them, becauſe it would make the capital high; as the coſt of 100 ſheep would be upwards of fifty or ſixty pounds. However, when both are ſhewn, the reader knowing his own ability, may chuſe what ſuits him beſt.

The table on this ſubject gives the gentlemen or graziers at one view, the advantage they may make of their land, by ſetting it in 35 acre farms as above, to their cotters or labourers, by which means they will make rich thoſe that would otherwiſe be poor and miſerable all their lives. In ſhort they would gain

gain the prayers of the poor and the bleſſing of God; the thanks of the public in general, and add money to their own pockets, and this without any hazard or trouble: for by dividing, ſtocking and tenanting the farms thus, they (as obſerved) makes the labourer a farmer, and engages him to ſerve his landlord, be uſeful to the public, and all for his own intereſt, which laſt article is ſo prevailing as to make him aſſiduous; and though a labourer may be illiterate, yet he is not ſo void of underſtanding, but when reaſon is diſplayed or laid open to him, he will immediately judge, and doubtleſs follow what he ſees will make for his intereſt. However, leſt ſloth, ſuperſtition, bad advice or perverſeneſs ſhould get the better of induſtry, good œconomy, or good huſbandry, his landlord ſhould always keep him ſubject to his will, or order, as much as if he was his immediate ſervant; therefore him or his ſteward, ſhould take a turn among ſuch tenants every month, to ſee they kept

up

up to ſuch huſbandry, rules or orders, as he had or ſhould lay down to them.

And there would be no more, or ſo much hazard of loſing the rent by theſe farmers, than if they let five or ſix hundred acres together.

I know no rents in Ireland better paid than thoſe by cotters; and in this caſe, the landlord would have the ſame ſafety of rent, as he would have of the ſtock of his own demeſne.

He might if he chuſe it, take corn at a market price for his rent. He might alſo if he pleaſed, ſubject each farm to find a labourer to work for him two or three days in the week, and pay him the currency of the country, as theſe two men might manage their farm and ſpare three days in a week, particularly if it was incloſed when they entered, or when they had got it incloſed or ditched.

A SCHEME

A SCHEME

For maintaining the POOR,

Humbly offered to the LEGISLATOR, DUBLIN SOCIETY, and for the Peruſal of the Inhabitants of Ireland, *for maintaining the Poor, to prevent Beggars, and to ſhew that each Pariſh might keep them well, and be Gainers by their Work.*

I. BEFORE this Scheme can be put properly in force, it is neceſſary, that an Act ſhould paſs to give every pariſh a lawful authority to retain their poor at home, and enforce them to labour and regular decorum, under ſuch reſtrictions as this Scheme requires; as alſo to warrant and ſupport the pariſhioners to raiſe or levie taxes, or poor-ſeſſes, and ſuch power to be veſted in two ſubſtantial houſe-keepers, living and reſiding in the pariſh; theſe officers to be called the overſeers of the poor; ſaid officers to be choſen by a veſtry held by the parſon of the pariſh and inhabitants thereof; ſaid veſtry to be called, and the overſeers choſen every Eaſter-Monday in the pariſh church, at which place the old officers or overſeers ſhould have their books examined, and delivered to their ſucceeding officers, together with any ſurplus money that might remain in their hands; but if they ſhould have advanced any money, the new officers ſhould pay them, and reimburſe themſelves when the enſuing tax was gathered, and in order that the officers ſhould have ſomething for their trouble, they ſhould be allowed ſix-pence in the pound ſterling, for every pound ſo gathered, laid out,

and expended; but as the pariſh would take it turn about, the labour, or loſs and gain would be leſs material.

II. Suppoſe the ſaid two overſeers to be choſen at Eaſter 1766, upon which they ſhould go round the pariſh, and make a ſtrict enquiry, how many poor it contained, as alſo how many ſtrolling beggars were abroad, that belonged to ſaid pariſh; and we will ſuppoſe the number found to be eighteen; by this, it will be eaſy to form a judgment what tax or fund to raiſe, to anſwer the following ſcheme.

III. Theſe officers ſhould proceed to take or rent for the ſaid eighteen poor people's uſe, thirteen acres and a half of land, being four and a half for every ſix perſons (or ſo in proportion) that might happen to be in the ſaid pariſh. It is alſo allowed by calculation, that theſe four acres and a half will maintain ſix in family, provided it be managed properly, and laid out in the following method, that is to ſay, an acre and a half to graze a milch cow, one ditto for corn, one ditto for flax, one ditto for hay and potatoes, which for eighteen perſons, and rented at 25s. per acre, will make

	l.	s.	d.
On which build cabbins, ſuch as cotters generally do, which may be done for 20s. for every ſix in family; indeed moſt land-lords only allow from 5 to 10s. for building a cotter's cabbin, but if we allow 20s. for every ſix perſons, the above 18 will be	16	17	6
To three milch cows for the three families, ſix in each, at 4l. each cow, but it is ſuppoſed the cows will laſt ſeveral years, therefore the firſt would be the hardeſt, for the next year when	3	0	0
	£. 19	17	6

	£.	s.	d.
Brought over -	19	17	6
the cows were dry they might be changed for ſpringers at about 20s. boot each cow - -	12	0	0
To three fat cows for hang beef at 4l. each - - - -	12	0	0
To three fat hogs at 20s. each - -	3	0	0
To cloaths for eighteen perſons at 30s. per year each -	27	0	0
To flax-ſeed for three acres of land, at three buſhels each acre, and at 8s. per buſhel - - -	3	12	0
To plowing the corn and flax-land	3	0	0
To ſeed-oats for three acres -	1	2	6
To ſeed potatoes for an acre and half	1	10	0
To ſchooling for any children that might not be able to work, ſuppoſe three to every ſix in family - -	1	10	0
To a man and his wife, as maſter and miſtreſs of the three united families or eighteen perſons - -	15	0	0

Note, It would be proper for the maſter to be a weaver, and to have looms to weave as much of their yarn as he could, and alſo be obliged to teach one of his poor children that trade. The maſter and miſtreſs to be under ſubjection to the overſeers; the man's care ſhould be over the land and out of door buſineſs, and by the way of a bailiff to keep the poor at work and in regular order. The woman to mind the houſe, and teach the females to card, ſpin, knit, and ſuch like, every one to their proper work as their age and ſex requires.

£. 99 12

	£.	s.	d.
Brought over -	99	12	0
To neceſſaries for the three united families, one year with another - -	5	0	0
	£. 104	12	0

We find the above 104l. 12s. quite ſufficient to maintain eighteen poor people.

Now ſuppoſe there be ſix perſons out of every eighteen (or ſo in proportion) not able to work. Quære, whether the remaining be ſufficient to manage the ground, and ſpin the three acres of flax into yarn, or as much of it as will pay the above expence? This I take upon myſelf to make clear; and alſo, upon a moderate computation, to find the value of three acres of flax thus ſpun and ſold as in the following table.

	l.	s.	d.
To 60 buſhels of ſeed, 20 on each acre, at 8s. per buſhel — —	24	0	0
To 180 ſtones ſcutched flax, 60 on each acre, when hackled to 8d. a pound tare, will produce 1080 pounds, 900 pounds ſpun to two dozen and half in the pound, and ſold at 6d. per dozen — — —	56	5	0
To 1260 pound of tow, 460 when ſpun into yarn worth 8d per pound -	15	6	8
To 110 pounds of flax ſold unſpun at 8d. per pound —	6	0	0
To 800 pounds of tow, ſold unſpun, at 4d. per pound — —	13	6	8
	£. 114	18	4

Without doubt, three acres of flax will make, at a moderate calculation, as above 114l. 18s. 4d.

ſo

ſo that the expence of the eighteen poor ſubtracted, leaves a profit of 10l. 6s. 4d. to the pariſh for chance of ſickneſs, and burials, &c. &c. The profit would ſtill be greater, were they to have looms, and manufacture the cloth thoroughly. If they ſhould be old men, &c. that could not be able to work out of doors, they might pull oacum, &c. And when the overſeers found themſelves ſtrong in caſh, (as without doubt they would if proper œconomy was uſed) they ſhould give it in ſmall premiums amongſt the poor families, in order to encourage induſtry; this would be like giving the beſt wages to the beſt ſervants.

As to any cities, ſuch as Dublin, Cork, &c. each pariſh might take houſes at a low rent in bye places, and convert them into work-houſes, and inſtead of ſowing flax, they might buy it to ſpin, and ſell the yarn; as alſo, buy old ropes for the men to make oacum of.

But it would be adviſable for the overſeers of ſuch cities to go eight or ten miles into the country, and take land in proportion for any number of poor they might have; by this, their living would come cheap, and they would always have flax enough at the firſt hand, which would leave the greater profit; and if it was eight or ten miles from the city, it would be no great matter for overſeers to go, week about, to ſee that their maſter and miſtreſs kept proper regulations in their poor families.

CHAP.

CHAP. XXIX.

Laws and Rules that are neceſſary, and what is in Force in England, to keep Regulation and proper Decorum in each Pariſh, &c. with Remarks on the foregoing Table, &c.

EVERY pariſh ſhould put a badge on the breaſt of each of their poor, made of braſs about the ſize of a crown piece, and the name of the pariſh they belong to, ſtamped thereon, and any one that ſtrayed out of their own pariſh, without a furlow from the miniſter thereof, ſhould be immediately taken and ſent to goal, until the pariſh to which they belonged had notice to bring them home, which pariſh ſhould pay all their expences.

No ſervant ſhould gain a ſettlement without ſerving one maſter one whole year; in ſuch caſe his ſettlement ſhould be in the pariſh of his laſt year's ſervitude, provided his maſter belonged to the ſaid pariſh.

A ſervant woman ſhould gain a ſettlement in the ſame manner; but if ſhe marry, then ſhe goes to her huſband's ſettlement.

If a ſingle woman be got with child, it is the buſineſs of the overſeers of the pariſh ſhe then reſides in, to inquire if ſhe belonged to ſaid pariſh; if not to remove her to the pariſh ſhe belongs.

The overſeers of ſuch pariſh muſt take her to the next juſtice of the peace to examine her upon oath, who is the father of the child. If ſhe will not ſwear or confeſs, then it lyeth at the mid-wife's door before ſhe delivers her, upon which the overſeer takes the man by force, with a warrant, and obliges him either to marry the woman, or give ſecurity to main-

maintain the child, or go to goal; if the laſt be his choice, then the pariſh to which the woman belongs muſt maintain her in her lying-in, and the child, until the man is brought to reaſon.

If any vagrant beggar, or paſſenger, be detected aſking alms, it is the buſineſs of the overſeers to take them to a juſtice of peace, to examine upon oath the pariſh they belong, which being found out, the juſtice muſt grant a paſs from overſeer to overſeer, until they come to their own pariſh, and that pariſh to pay all their travelling expences; but the overſeers maſt take them either on horſe-back, or in ſome carriage, maintain them on the road, and not part with them out of their cuſtody, until they are delivered up to the pariſh unto which they belong.

Note, The overſeers of one pariſh are not to go paſt the overſeers of the next.

No one to gain a ſettlement in any pariſh but ſuch as had lived, and payed church, king, or poorceſs in ſaid pariſh.

An apprentice ſhould have his ſettlement in the pariſh he ſerved the laſt thirty one days of his time, always provided, that the maſter belonged, by ſettlement to the ſaid pariſh.

It is the buſineſs of the overſeers of the poor to make the public money go as far as they can, but not to let the poor want.

In ſhort, for the year being, they are the fathers of the poor, and the ſtewards of the public.

It is neceſſary that one of them at leaſt, ſhould be a ſcholar; it is common to chuſe a ſcholar and an illiterate perſon together.

When a poor man, &c. wants work, or is ſick, lame, &c. ſo that he cannot maintain his family, he is to apply to the overſeers of his pariſh, and if they do not relieve his wants, he may go to a juſtice of the peace, and make his complaints known upon oath;

the

the ſaid juſtice being thoroughly apprized of his neceſſities, can oblige his pariſh to take care of him.

By the foregoing table, it plainly appears that the pariſh would be no loſers at the end of the year, when they come to ſell the yarn, flax, tow, &c. therefore need not raiſe any tax, after the firſt year, but let that be a ſtanding capital.

It is alſo as plain to any one that underſtands calculation of flax, yarn, labour, land, &c. that the table I have laid down may be reaſonably expected upon a moderate calculation to anſwer. But if it ſhould be high, (as it is not) we have room, as the ſurplus or profit to the pariſh, over and above maintaining the ſaid eighteen poor, is 10l. 6s. 4d.

I allow 180 pounds of ſcutched flax, and 800 pounds of tow, to be ſold unſpun, as I would not preſs the ſpinners too cloſe, tho' I have good reaſon to believe they would be able to ſpin the whole, particularly if there ſhould chance to be more women than men, and I believe this would be generally the caſe.

If we find by calculation, that each pariſh will produce eighteen poor, the number in Ireland will amount to 41274, and if every eighteen coſt 10l. 12s. the amount of the whole coſt will be 239733l. 3s. a charge impoſſible to be ſupported by all the public funds in Ireland; and were magnificent poor-houſes to be built for them, as is too much practiſed already, the ſinking fund would be immenſely great; beſides a poor perſon that has lived in a ſnug, warm, ſmoaky cabbin all his life, until he is taken up into one of theſe magnificent buildings, it is like throwing pearls before ſwine, (if we may uſe the expreſſion.) In ſhort, it is taking them quite out of their own elements, where, I am certain, if they had meat and cloaths ſufficient, they would ſleep, work, be as healthy, and live as long, as they would in the fineſt houſe in the kingdom.

Another

Another heavy charge on theſe great houſes, is a long chain of officers with large ſalaries.

Perhaps I may be anſwered, that the poor might be kept at labour, and an advantage made of their work in one of theſe great work-houſes. This I grant, but never with that propriety and advantage as it would be, by each pariſh maintaining their own poor; for in this caſe, it would behove every inhabitant of the pariſh to ſee that there was proper regularity and decorum kept, and that they were employed to the beſt advantage; and as the overſeers would be choſen yearly, it would be with them, as it is with the Lord Mayor, every one ſtriving to excel his predeceſſors.

Likewiſe the pariſh-poor would have the land at the cheapeſt hand, to raiſe their proviſions and flax on, by their own labour, therefore would have the advantage of above three to one, of thoſe who had them to buy at the deareſt hand, were every other article upon an equal footing, which they are not.

But ſuppoſe we could be ſo happy as to ſay, that there are work-houſes enough built, and a fund ſufficient to maintain all the poor in the kingdom, and the ſaid poor put into them this very day, I doubt not but in ſix months, I ſhould ſee as many beggars as ever, ſtrolling about the country; at the moſt, I would not deſire above a year or two, to ſtock all the high-roads and ſtreets, &c. in Ireland.

Whereas on the other hand, if the above ſcheme was to take place, it would put a final ſtop to ſtrolling beggars, and in ſhort, many pilfering robbers too, which beg by day and rob by night. It would behove every pariſh to keep their poor at home, knowing if they ſtrolled abroad, they would have them to fetch home at their own expence; and if they did not keep up to theſe regularities, the law would oblige them to do it, as without doubt, it

would be put into execution, for it would be very natural for one pariſh to ſay to another, we maintain our poor, therefore we expect you to do the like; for we will not be peſtered or pilfered by them.

Theſe are conſequences which I have a right by experience to know, as I am a native of England, and have paid a great many poor-ceſſes and other taxes there, as alſo have ſerved moſt of the pariſh offices.

In Yorkſhire, Lincolnſhire, Lancaſhire and Cheſhire, within theſe few years, ſome pariſhes have taken houſes of low rents at the end of a town, and converted them into work-houſes for the reception of the poor, and find them with meat, drink, cloaths enough, and work of different ſorts, according to their age, ſex and abilities. By this frugal regularity, I have heard overſeers ſay, that they have reduced their poor ceſs from ten-pence to two-pence in the pound; and I am confident, were they to copy after the foregoing plan, they might reduce it to nothing.

Parkgate and Neſton pariſh are well known to moſt of the Iriſh gentry, as it lies in the road to London. By the introduction of ſome ſenſible penetrating reſidentors in ſaid pariſh, they have of late fixed a work-houſe at the end of Neſton, at a low rent, wherein they employ their poor, ſome in ſpinning, ſome in winding perns, others picking oacum, &c. &c. according to their age and ſex. In ſaid work-houſe they have a loom, and he that takes care of the poor, as maſter, is by trade a weaver, and weaves their yarn.

By this œconomy, the poor ceſs of Neſton is reduced to a trifle to what it formerly was, and the poor thereof are made uſeful members of ſociety.

If this act and plan was to take place, what a pleaſure it muſt give every human mind, to think that every perſon in his pariſh was freed from hunger

and

and cold, as without doubt they would, having an aſy'um to fly to.

On the other hand, what chriſtian can ſleep in peace, tho' he be fed with corn and wine (as the phraſe is) cloathed in the ſofteſt raiment, and lying on a bed of down, as long as he knows his fellow-creatures, made up of the ſame materials of ſoul and body, and who have the ſame ſenſe of pain and pleaſure, are ſtarving for want of the common neceſſaries of life.

I apprehend no one need ſtretch his mind to the Indies, or ranſack the deſarts of Arabia, in finding out miſerable objects, for to thank his maker for being ſo much happier and better in his life than they. Let him turn his mind on his own pariſhioners, perhaps his next door neighbour, and there he will find miſery in as full perfection as in thoſe ſavage countries.

It is impoſſible for any one man to keep ſo good diſcipline, regulation or decorum over a kingdom, as over a pariſh or townſhip. Did not our fore-fathers ſee the neceſſity there was for to divide the kingdom into ſeveral denominations; ſuch as provinces, counties, pariſhes, and the like; and to appoint proper officers down from the king to the conſtable, to take care and manage; and every one to have in his charge ſuch a diſtrict as his abilities or power may keep in order or regulation. Alſo, is not a ſmall family eaſier overlooked, managed or diſciplin'd than a large one?

May we not deem the poor, a family that the rich or public has, or ought to have under their care; and does not this family of poor ſtroll and pilfer about the kingdom for want of an act or power to keep them at home? Would not ſuch retainure oblige them to be honeſt and induſtrious? Could they impoſe lies of their inability to work, or of

not

not getting work, &c. ſo eaſy upon their next neighbour, as upon thoſe in another part of the kingdom? Is it not better for me to maintain the poor of my own pariſh than to let another pariſh maintain them, and I to maintain theirs? And is not the poor maintained ſome how or other? for if we will not give it, they will take it (hunger is a ſharp thorn).

Would not this act be a check upon the ſtock farmers? and oblige them either to find the poor work, or maintain them, ſince their bullocks do not carry a pocket, and meat or money in it to ſerve them. But what is every one's buſineſs is no one's buſineſs, or elſe it is as clear as the noon-day, that this great work can never be compleated upon any other footing.

The Engliſh was ſo ſenſible of this, that where the pariſhes are large, every townſhip maintains it's own poor; and this by the mutual conſent of the pariſh.

It is ſurprizing to me to hear the Iriſh gentlemen pity the Engliſh, in being ſubjected to the law of maintaining their own poor. Theſe troubles muſt be imaginary, or the laws has been complained of by ſome John Wronghead or other in the London coffee-houſes, who knows more about a glaſs of jelly, or capilair, than a farm, as it is the farmers that chiefly have the poor in their charge and maintain them, and who do it without murmuring.

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ERRATA.

Page 12, line 8, for whereas read where I. Page 11, in the contents of the chapter line 3, for 39 read 2. P. 63, l. 20, for ſtriked read ſtretched. P. 144, l. 13, for gaarden read garden, P. 243, l. 20, after expence read 55l. 15s. Miſſed in the Errata of the firſt Vol. P. 186 laſt l. for fills read falls. P. 117, l. 7, for with read worth.

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